

TABLE 11.  
CONFORMITY BUDGET TEST RESULTS FOR CO, VOC, NO<sub>x</sub>, AND PM-10  
(METRIC TONS/DAY)  
MARICOPA COUNTY NONATTAINMENT AND MAINTENANCE AREAS

Pollutant	Carbon Monoxide <sup>a</sup>	Eight-Hour Ozone <sup>b</sup>		PM-10 <sup>c</sup>
Year	2015	2008 VOC	2008 NO <sub>x</sub>	2006
<i>Budget Test</i>	662.9	67.9	138.2	59.7
2015	534.4	48.0	94.6	43.7
2025	426.0	35.6	56.9	45.4
2035	435.4	32.2	54.6	50.1

**a** The Carbon Monoxide Maintenance Plan established a 2015 budget. The onroad mobile source emissions correspond to a Friday in December episode day conditions.

**b** The Eight-Hour Ozone Plan established 2008 budgets for volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>). The onroad mobile source emissions correspond to a Thursday in June episode day conditions.

**c** The Revised MAG1999 Serious Area Particulate Plan for PM-10 established a 2006 emissions budget corresponding to an average annual day.

TABLE 12.  
CONFORMITY TEST RESULTS USING SUBMITTED  
BUDGETS FOR CO, VOC, NO<sub>x</sub>, AND PM-10 FOR INFORMATION PURPOSES  
(METRIC TONS/DAY)  
MARICOPA COUNTY NONATTAINMENT AND MAINTENANCE AREAS

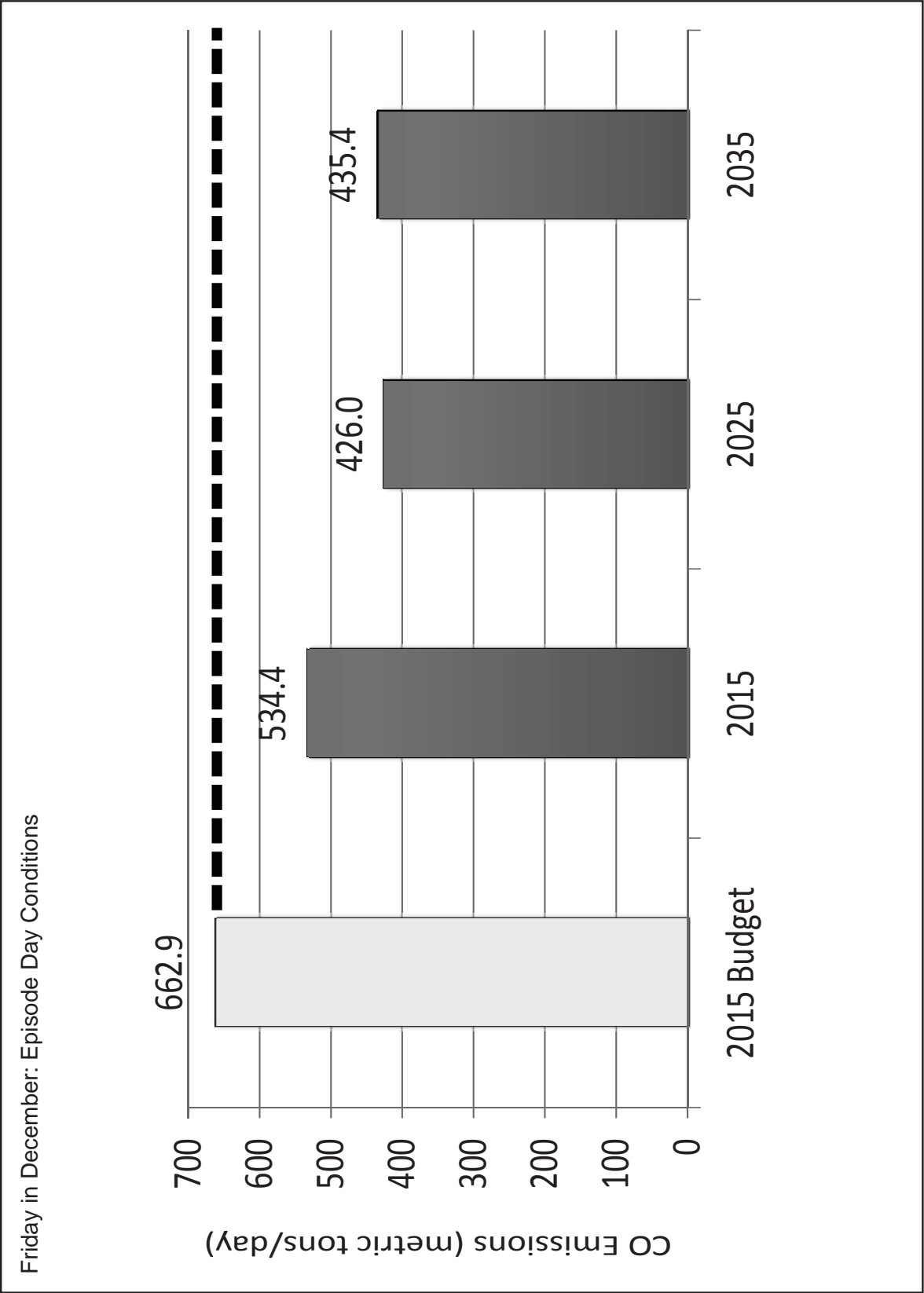
Pollutant	Carbon Monoxide	Eight-Hour Ozone		PM-10
Year	2025 <sup>a</sup>	2025 <sup>b</sup> VOC	2025 <sup>b</sup> NO <sub>x</sub>	2012 <sup>c</sup>
<i>Budget Test</i>	559.4	43.8	101.8	54.9
2015				43.7
2025	426.0	35.6	56.9	45.4
2035	435.4	32.2	54.6	50.1

**a** The submitted MAG 2013 Carbon Monoxide Maintenance established a 2025 budget of 559.4 metric tons per day. On September 10, 2013, EPA advised that MAG should include in this conformity analysis the budgets from submitted plans so that an adequacy finding on a submitted SIP does not interfere with the conformity process.

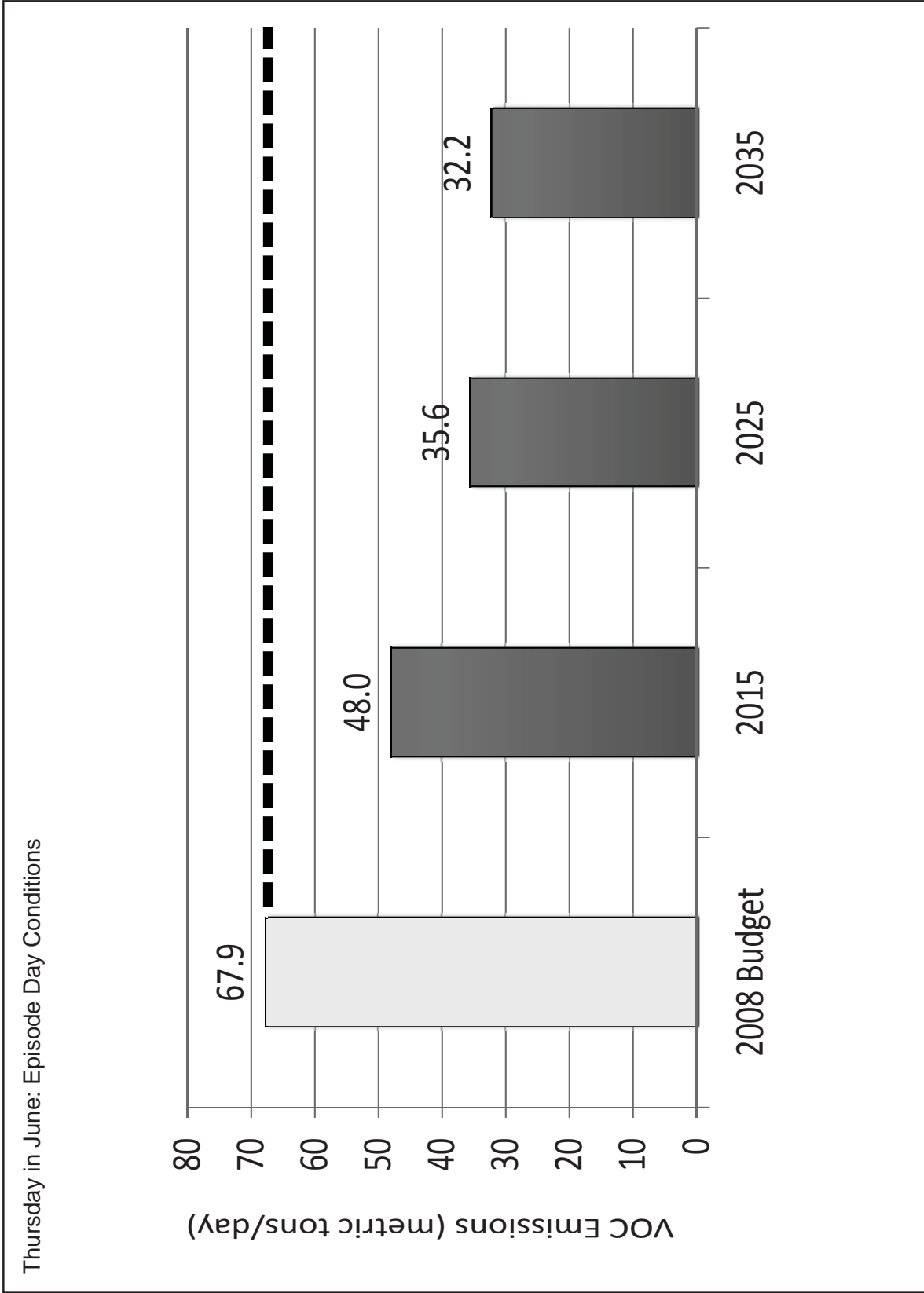
**b** The submitted MAG 2009 Eight-Hour Ozone Plan established a 2025 volatile organic compounds (VOCs) budget of 43.8 metric tons/day and a 2025 nitrogen oxides (NO<sub>x</sub>) budget of 101.8 metric tons/day. On September 10, 2013, EPA advised that MAG should include in this conformity analysis the budgets from submitted plans so that an adequacy finding on a submitted SIP does not interfere with the conformity process.

**c** The submitted MAG 2012 Five Percent Plan for PM-10 established a 2012 emissions budget of 54.9 metric tons/day. On September 10, 2013, EPA advised that MAG should include in this conformity analysis the budgets from submitted plans so that an adequacy finding on a submitted SIP does not interfere with the conformity process. On December 5, 2013, EPA found the conformity budget in the MAG 2012 Five Percent Plan for PM-10 adequate for transportation conformity purposes, effective December 20, 2013.

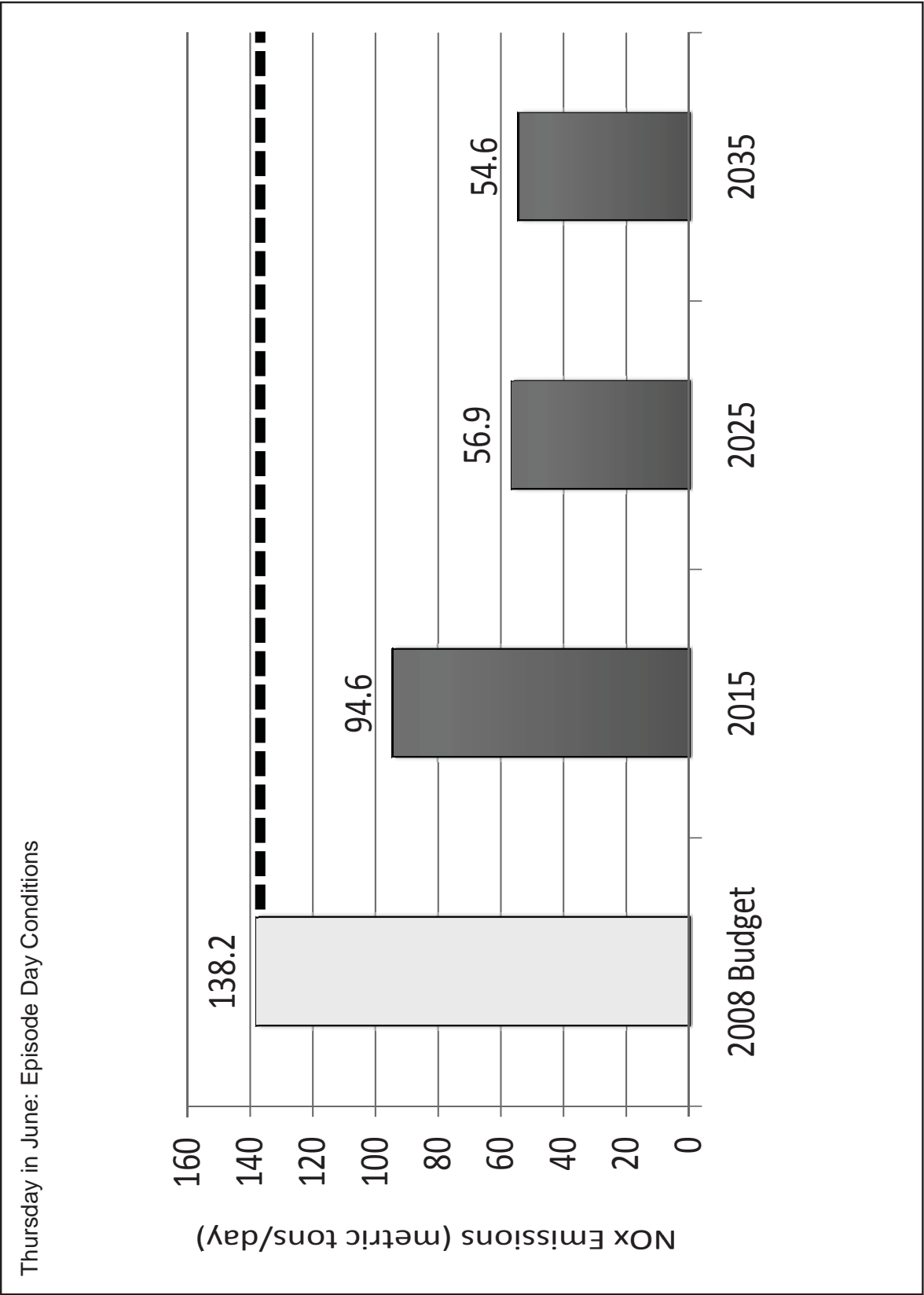
**Figure 12: Carbon Monoxide Results for Conformity Budget Test**  
Maricopa County Nonattainment and Maintenance Areas



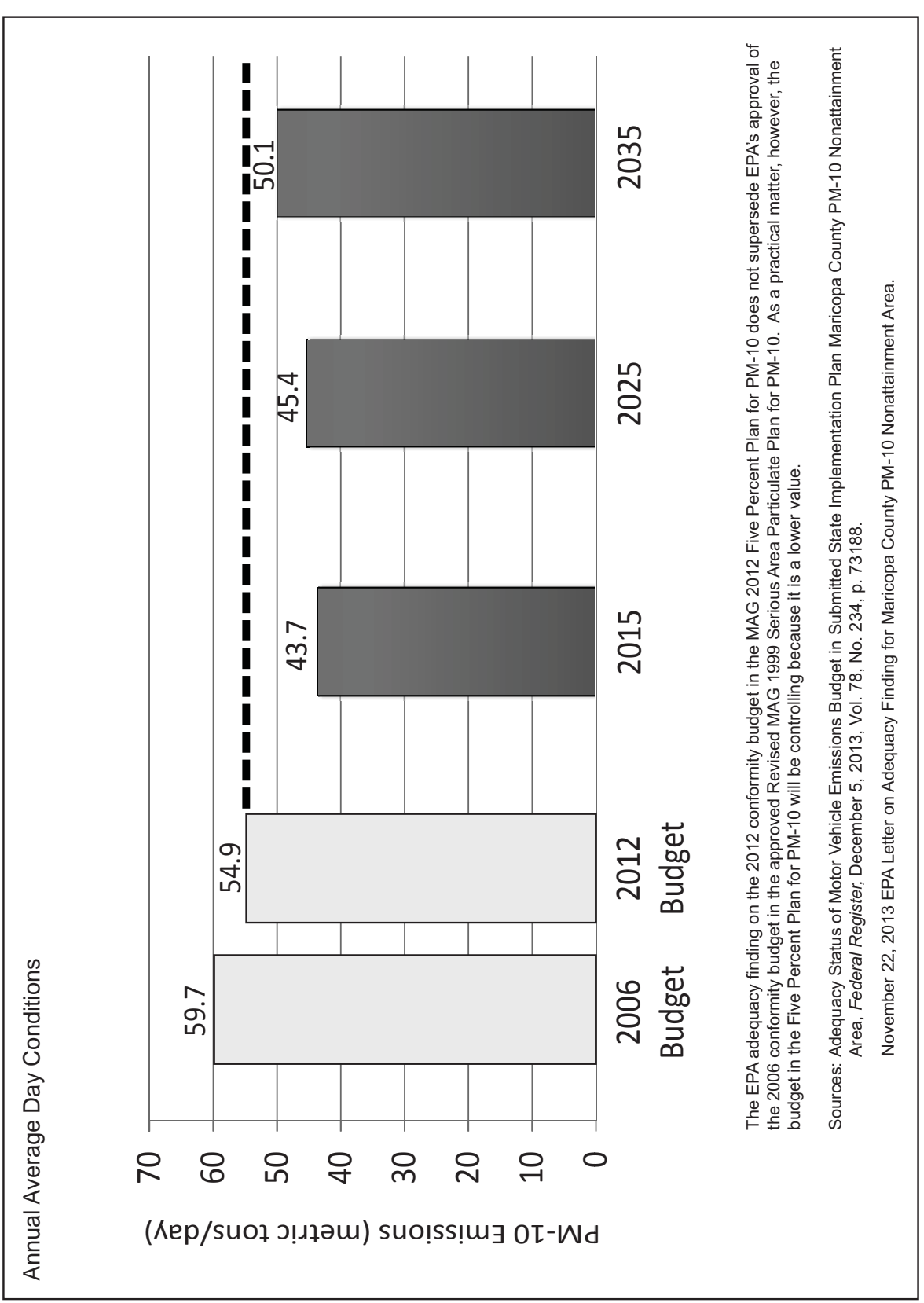
**Figure 13: Eight-Hour Ozone: Volatile Organic Compounds (VOC) Results for Conformity Budget Test**  
Maricopa County Nonattainment and Maintenance Areas



**Figure 14: Eight-Hour Ozone: Nitrogen Oxides (NOx) Results for Conformity Budget Test**  
Maricopa County Nonattainment and Maintenance Areas



**Figure 15: PM-10 Results for Conformity Budget Test**  
Maricopa County Nonattainment and Maintenance Areas



**PINAL COUNTY NONATTAINMENT AREAS**

For the Pinal County nonattainment areas, build/no-build tests were conducted for particulate matter (PM-10) for the PM-10 nonattainment area and particulate matter (PM-2.5) and nitrogen oxides (NOx) for the PM-2.5 nonattainment area. For each test, the required emissions estimates were developed using the transportation and emission modeling approaches required under the federal transportation conformity rule and summarized in Chapters 3 and 4. The applicable conformity tests were reviewed in Chapter 1. The results are summarized below. Table 13 and Figures 16 through 18 present the conformity results for the PM-10 and PM-2.5 nonattainment areas for each of the analysis years tested.

Conformity Test Results for the Pinal PM-10 Nonattainment Area

The conformity modeling results for PM-10 are listed in Table 13 and graphed in Figure 16. The PM-10 emissions were calculated for the PM-10 nonattainment area for an annual average day.

The projected PM-10 emissions in 2015, 2025, and 2035 for the build scenario are 84,725, 86,163, and 88,250 kilograms per day, respectively. The projected PM-10 emissions in 2015, 2025 and 2035 for the no-build scenario are 84,733, 86,227, and 88,582 kilograms per day, respectively.

Since the PM-10 emissions predicted for the build scenarios are not greater than the PM-10 emissions predicted for the no-build scenarios in all conformity analysis years, it is also reasonable to expect the build emissions would not exceed the no-build emissions for the time periods between the analysis years.<sup>1</sup> These results support a finding of conformity.

Conformity Test Results for the Pinal PM-2.5 Nonattainment Area

The conformity modeling results for PM-2.5 and NOx are listed in Table 13 and graphed in Figures 17 and 18. The PM-2.5 and NOx emissions were calculated for the PM-2.5 nonattainment area for an annual average day.

The projected PM-2.5 emissions in 2015, 2025, and 2035 for the build scenario are 32, 23, and 29 kilograms per day, respectively. The projected PM-2.5 emissions in 2015, 2025 and 2035 for the no-build scenario are 32, 24 and 31 kilograms per day, respectively.

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<sup>1</sup>Section 93.119(d)(1) of the Transportation Conformity Regulations (EPA, 2012c), refers to “build” as the “action” scenario and “no-build” as the “baseline” scenario.

The projected NOx emissions in 2015, 2025, and 2035 for the build scenario are 1,233, 860, and 833 kilograms per day, respectively. The projected NOx emissions in 2015, 2025 and 2035 for the no-build scenario are 1,235, 916 and 908 kilograms per day, respectively.

Since the PM-2.5 and NOx emissions predicted for the build scenarios are not greater than the PM-2.5 and NOx emissions predicted for the no-build scenarios in all conformity analysis years, it is also reasonable to expect the build emissions would not exceed the no-build emissions for the time periods between the analysis years.<sup>1</sup> These results support a finding of conformity.



TABLE 13.  
CONFORMITY INTERIM EMISSION (BUILD/NO-BUILD) TEST RESULTS  
(KILOGRAMS/DAY)  
PINAL COUNTY NONATTAINMENT AREAS

	PM-10 Nonattainment Area	PM-2.5 Nonattainment Area	
Pollutant	PM-10	PM-2.5	NOx
2015			
- Build	84,725	32	1,233
- No-Build	84,733	32	1,235
2025			
- Build	86,163	23	860
- No-Build	86,227	24	916
2035			
- Build	88,250	29	833
- No-Build	88,582	31	908

Figure 16: PM-10 Results for Conformity Interim Emission (Build/No-Build) Test  
Pinal County PM-10 Nonattainment Area

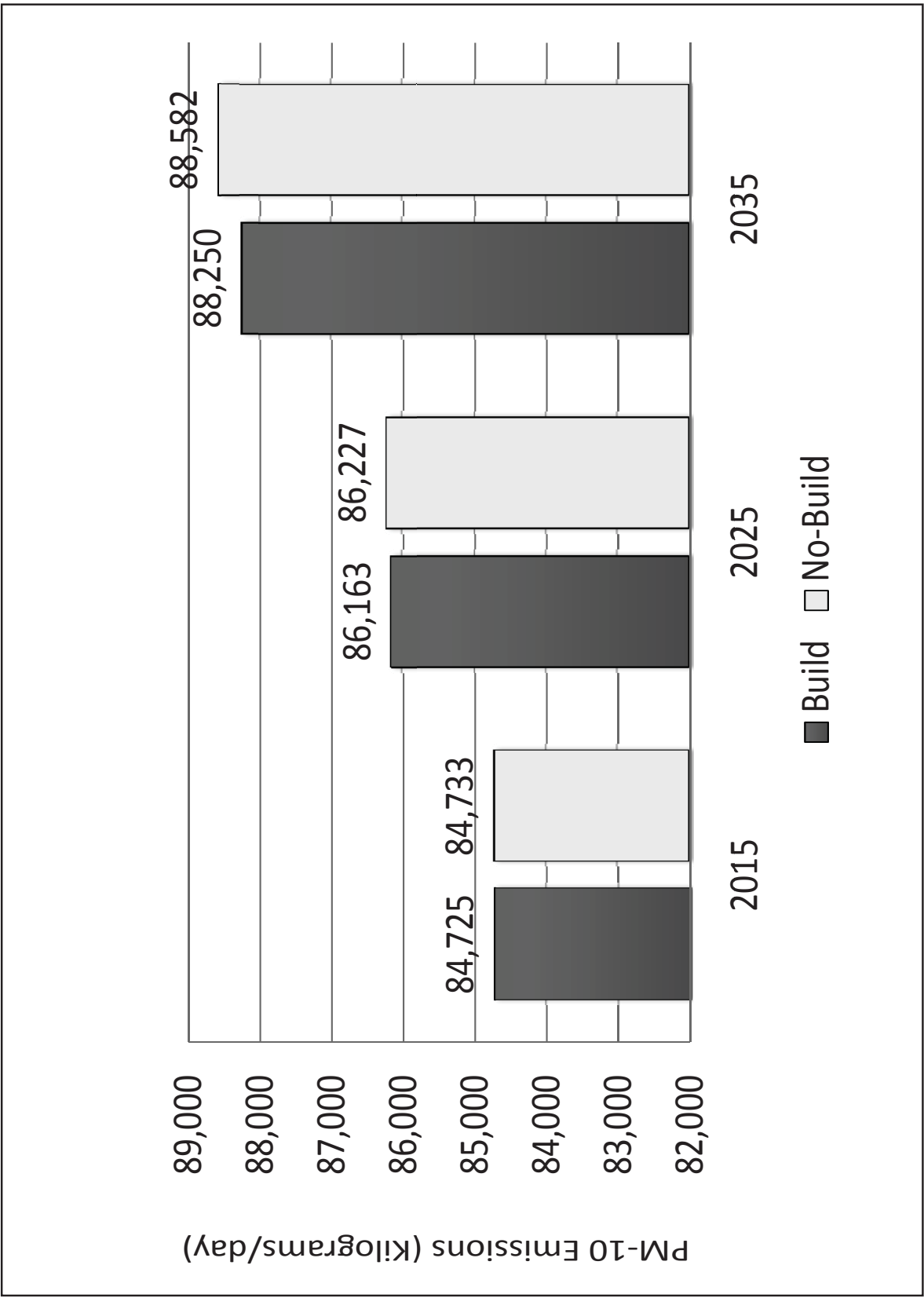


Figure 17: PM-2.5 Results for Conformity Interim Emission (Build/No-Build) Test  
Pinal County PM-2.5 Nonattainment Area

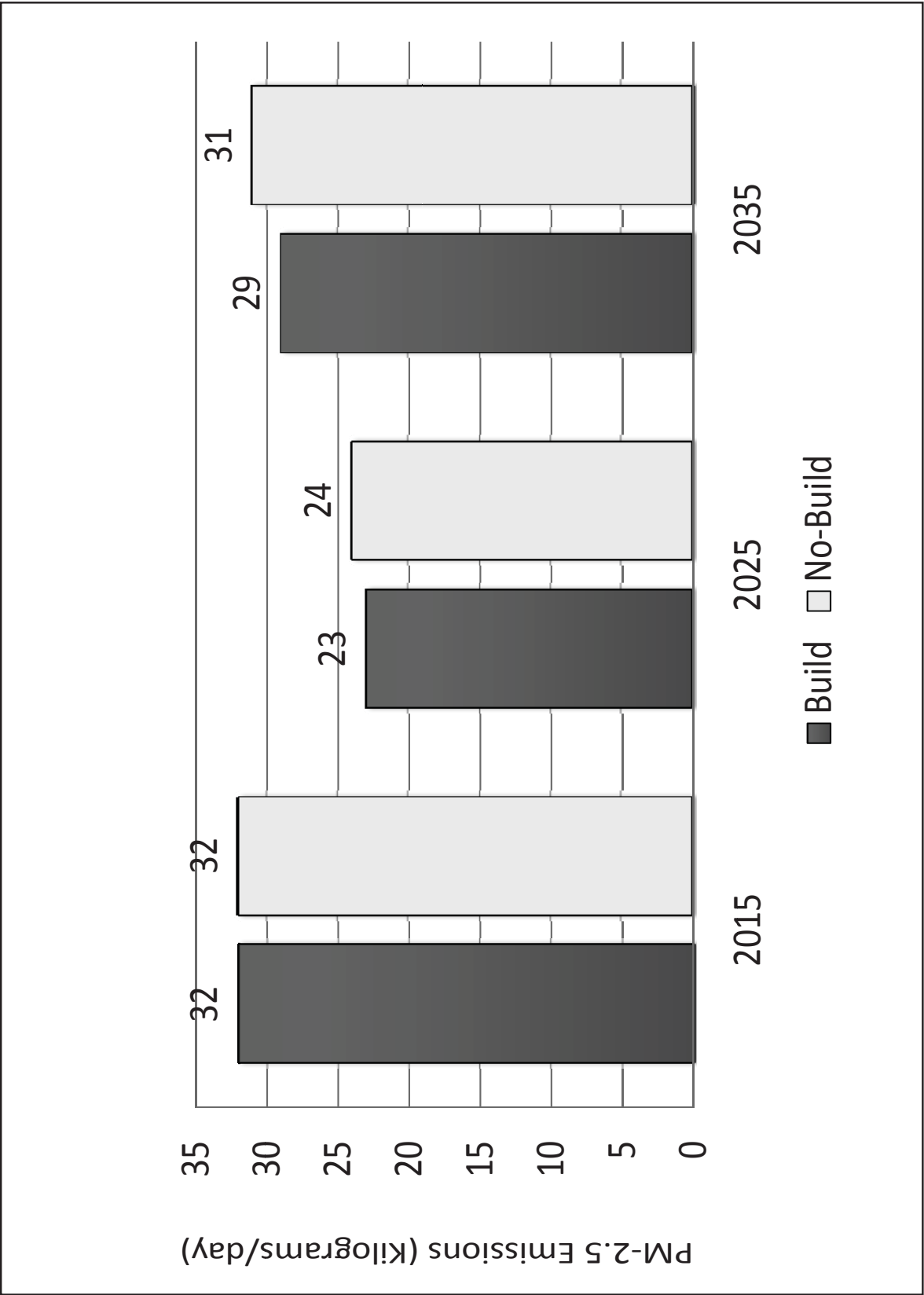
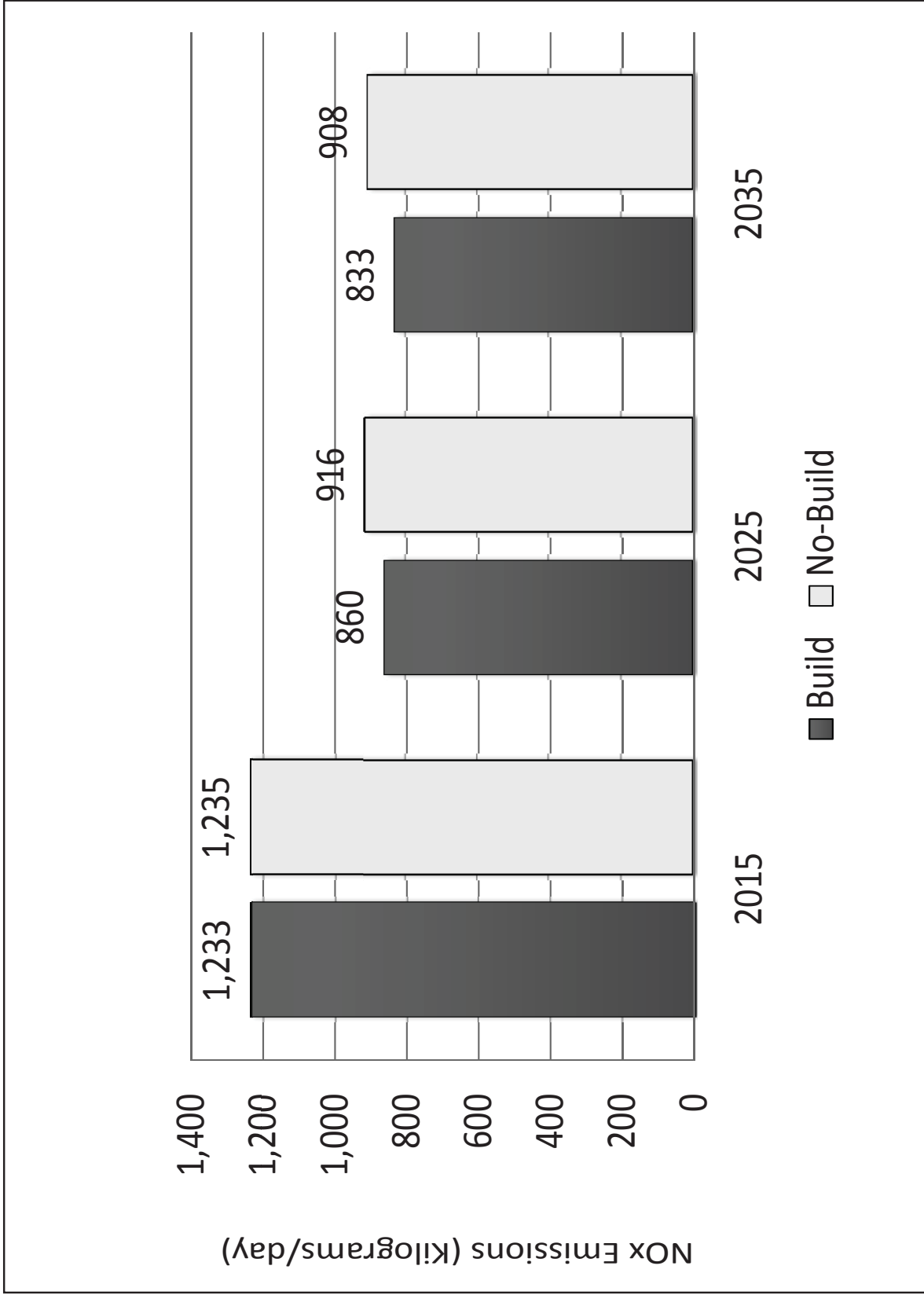


Figure 18: NOx Results for Conformity Interim Emission (Build/No-Build) Test  
Pinal County PM-2.5 Nonattainment Area



GLOSSARY

40 CFR Parts 51 and 93	Sections 51 and 93 from Title 40 of the Code of Federal Regulations describing the transportation conformity rule.
ADEQ	Arizona Department of Environmental Quality.
ADOT	Arizona Department of Transportation.
AP-42	AP-42, Fifth Edition, provides PM-10 emission factors. Common name for the EPA Compilation of Air Pollutant Emission Factors.
Applicable Plan	An air quality plan that has been approved by EPA for a specific air pollutant.
A.R.S.	Arizona Revised Statutes. The codified laws of the State of Arizona.
Arterial Roadway	A major urban street serving through traffic and also providing access to adjacent land.
Attainment	The status of having air quality that is below (i.e., cleaner air) the allowable national standard for a particular pollutant.
AZ-SMART	Arizona Socioeconomic Modeling, Analysis, and Reporting Toolbox is the MAG socioeconomic model used to develop population and employment projections.
Build/No-Build	“Build” refers to the action scenario which assumes the “No-Build” scenario and the implementation of the proposed action (included in the TIP or RTP) for each of the years to be analyzed. “No-Build” refers to the baseline scenario which assumes the future transportation network without implementation of the proposed action (included in the TIP or RTP) for the years to be analyzed.

CAA	The U.S. Clean Air Act, referring to the Air Pollution Control Act of 1955, as subsequently amended in 1963, 1967, 1970, 1974, 1977, and 1990.
Capacity	The maximum number of vehicles that a roadway can carry in a given time period under prevailing roadway, traffic, and control conditions.
Centroid Connector	An abstract representation of the local street system, as used in MAG travel demand models. These links connect the centroids of zones, where trips begin or end, to arterial or collector roadways on the modeled road network.
CMAQ	Congestion Mitigation and Air Quality Improvement Program.
CO	Carbon monoxide. A colorless, odorless, poisonous gas that results from the incomplete combustion of carbon-based fuels, such as gasoline.
Collector Roadway	A minor urban street providing access to and from local streets and serving adjacent land use.
Concentration	The relative content of a pollutant in the air, expressed as a volume unit to volume unit often expressed as an average for a specified time interval. For example, the national standard for ambient carbon monoxide concentration is an eight-hour average of 9.0 parts per million.
Conformity	An analysis which demonstrates that a transportation plan, program, or project conforms with the State Implementation Plan purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards; and that such activities will not cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.
Congestion	Traffic congestion is a condition in which vehicles experience undue delay. It is quantified in the MAG travel demand models by the ratio of traffic volume to capacity

	(V/C). A V/C ratio of 1.00 or more is considered severe congestion.
Emission Factor	The rate at which a pollutant is emitted from a given source (example: grams per mile) for given conditions (e.g., vehicle type and model year, vehicle speed, fuel type, and ambient air temperature).
Episode Day	A day selected to represent conditions (meteorology, etc.) under which violations of the air quality standard for a particular pollutant are likely to occur.
EPA	United States Environmental Protection Agency.
Exceedance	A term used to refer to an episode during which ambient concentrations of an air pollutant in a region are higher than the allowable national standard.
FHWA	Federal Highway Administration.
FIP	Federal Implementation Plan.
FMS	Freeway Management System. Infrastructure such as cameras, variable message signs, and ramp metering systems to improve the flow of people and goods on limited access facilities.
FTA	Federal Transit Administration.
Freeway	A divided highway with two or more lanes for the exclusive use of traffic in each direction, and with full control of access and egress.
FY	Fiscal Year. The federal fiscal year extends from October 1 to September 30. For example, FY 2005 begins on October 1, 2004.
Hot Spot	Localized area with the potential to cause or contribute to a violation of an air quality standard. For example, a busy intersection where vehicular traffic may cause or contribute to increased emissions of carbon monoxide may attribute to a violation of the standard.
HOV	High Occupancy Vehicle. Multi-occupant vehicles such as a carpool, vanpool, or bus.
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HOV Lane	A roadway lane available for use by High Occupancy Vehicles.
HPMS	Highway Performance Monitoring System. Summary information for urbanized areas provides detailed data for a sample of the arterial and collector functional systems to assess highway condition, performance, air quality trends, and future investment requirements.
I/M	Vehicle Inspection/Maintenance Program.
ITS	Intelligent Transportation System. The deployment of advanced electronics and information technologies to improve the performance of freeways and arterial roadways.
Link	A computer record describing a section of roadway in the MAG transportation models.
Local Roadway	A road, usually with low traffic volume, designed solely to serve adjacent development rather than through traffic.
MAG	Maricopa Association of Governments. The Maricopa Association of Governments was designated the metropolitan planning agency for Maricopa County, Arizona, by Governor Jack Williams on December 14, 1973.
MCAQD	Maricopa County Air Quality Department.
Metric Ton	A unit of mass equal to 1000 kilograms, or approximately 2203 pounds.
Mode Choice Model	A computer model which determines mode choice, such as transit, auto driver, and auto passenger, based on variables such as travel times, costs, and income of travelers.
MOVES2010	MOVES2010b is a currently approved EPA model for estimating onroad vehicle emission factors. This model is used to estimate the emission factors for CO, VOC, NOx, and PM-10 exhaust, tire wear, and brake wear emissions.
MOVESLink	A MAG software program that combines emission factors (such as from MOVES2010) with link-level transportation data to produce onroad mobile emission inventories.
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MPO	Metropolitan Planning Organization. A body of elected public officials responsible for regional transportation decision-making, as required under federal transportation planning regulations.
NAAQS, or National Standard	Refers to the National Ambient Air Quality Standards (NAAQS) which are the maximum pollutant levels which may not be exceeded in the ambient air to protect the public from adverse health effects.
Network	A computer readable representation of a specific urban street and highway system.
Nonattainment Area	An area designated by the U.S. Environmental Protection Agency as not being in attainment of the national standard for a specified pollutant.
Node	A point identifying one end of a link in the MAG transportation models.
NO <sub>x</sub>	Nitrogen Oxides includes nitric oxide (NO) and nitrogen dioxide (NO <sub>2</sub> ). These gaseous air pollutants combine with volatile organic compounds (i.e. hydrocarbons) in the presence of sunlight to produce ozone.
O <sub>3</sub>	Ozone is a secondary pollutant formed by the combination of VOCs and NO <sub>x</sub> in the presence of sunlight.
OBD	On-Board Diagnostics. A computer based system built into all model year 1996 and newer light-duty cars and trucks. OBD monitors the performance of some of the engines' major components, including individual emission controls.
Phased in I/M Cutpoints	Cutpoints are the maximum emission level, by pollutant, used to determine if a vehicle passes or fails the emissions test administered through the vehicle inspection and maintenance program. The phased-in I/M cutpoints are the cutpoints currently enacted into legislation for vehicles subject to the enhanced emissions test.
PM-10	Particulate Matter less than or equal to ten microns in diameter.
ppm	Parts per million, a measure of pollution concentration.

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psi	Pounds per square inch, a measure of pressure.
Reentrained Dust	Dust deposited on the roadway that is subsequently projected into the air by the passage of motor vehicles.
Regional Rideshare Program	The MAG sponsored program which provides free technical assistance to individuals, companies, and public sector entities interested in carpooling, vanpooling, or other transportation alternatives to drive-alone motor vehicle use.
ROSS Plan	Regional Off-Street System Plan. A plan describing a region-wide system of off-street paths/trails for non-motorized transportation.
RPTA	Regional Public Transportation Authority. A political subdivision of the State of Arizona established in 1985 to conduct regional transit planning and to develop and operate a regional transit system in Maricopa County.
RTP	Regional Transportation Plan.
SIP	State Implementation Plan. Mandated by the Clean Air Act, SIPs contain details to monitor, control, maintain, and enforce compliance with National Ambient Air Quality Standards.
Socioeconomic Data	Data consists primarily of TAZ-level household projections of population and employment by type which are input to the MAG travel demand models.
TAZ	Traffic Analysis Zone. A small geographic area for which socioeconomic data is estimated in the MAG travel demand models.
TCM	Transportation Control Measure. A TCM as defined in CAA Section 108(f)(1)(A) includes any measure in an applicable implementation plan which is intended to reduce emissions from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions (e.g., transit improvements).
TIP	Transportation Improvement Program. An annual or biennial document listing transportation projects to be funded in upcoming years.

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TMA	Transportation Management Association. A group comprised generally of businesses to identify and develop solutions to shared transportation problems.
TOG	Total Organic Gases. Gaseous emissions that lead to the formation of ozone.
TransCAD	Software programs which are used to perform the MAG travel demand modeling.
Travel Reduction Program (TRP)	A program administered by Maricopa County, pursuant to the provisions of Arizona House Bill 2206 (1988), as subsequently strengthened by adoption of the Maricopa County Trip Reduction Ordinance.
U.S. DOT	United States Department of Transportation.
V/C Ratio	Volume to Capacity Ratio. A parameter used to measure congestion. For a given roadway link, it is calculated as total traffic volume divided by capacity.
Violation	A term used to define the number of exceedances that result in noncompliance with the national standard.
VMT	Vehicle Miles of Travel. A measure of total vehicle travel within a specified area and time frame.
VOC	Volatile Organic Compounds. VOCs are emitted in the storage and use of fuel, solvents, and many industrial and consumer chemicals, as well as from vegetation. VOCs and nitrogen oxides, when emitted in the presence of sunlight, undergo chemical reactions which result in the formation of ozone.

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APPENDIX 4-4

DUST CONTROL PERMIT

**Appendix 4-4, *Dust Control Permit***, contains an application for a Maricopa County Dust Control Permit. Fugitive dust generated as a result of construction activities must be controlled in accordance with the 2000 Arizona Department of Transportation *Standard Specifications for Road and Bridge Construction*, Section 104.08, local rules and ordinances, and special provisions. A Maricopa County Dust Control Permit would be obtained by the selected roadway contractor prior to the commencement of construction.



Maricopa County  
Air Quality Department

DUST CONTROL PERMIT APPLICATION PACKAGE

This package contains information and forms necessary to apply for a Dust Control permit as set forth in Maricopa County Air Pollution Control Regulations Rule 310. The Dust Control Permit Application Package is organized into three major parts.

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**In order to be accepted for review the Dust Control Permit Application Package must be complete. This includes answering all questions fully and accurately in the Applicant and Project information areas as well as submitting a Dust Control Plan. You may fill out Part 3 of the Dust Control Permit Application and submit it as your Dust Control Plan or you may write your own Dust Control Plan that conforms to Rule 310, Section 402.**

**Once a complete Dust Control Permit Application Package is accepted, allow up to 14 calendar days for permit processing plus sufficient time for delivery by U.S. Postal Service First Class mail.**

**Keep in mind**, the Maricopa County Air Quality Department uses the Instructions portion of the Dust Control Permit Application Package as criteria when reviewing, evaluating, and approving the Permit Application. The rules identified in the instructions contain legally binding and enforceable requirements. Permits issued by the Maricopa County Air Quality Department under the rules also contain legally binding and enforceable conditions and terms. The Dust Control Permit Application Instructions do not supersede or change any existing federal, state, or county regulations and laws, including requirements of an approved State Implementation Plan (SIP).

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**IMPORTANT RULE CHANGES EFFECTIVE MARCH 2008**

Maricopa County Air Pollution Control Regulations Rule 310 “Fugitive Dust from Dust-Generating Operations” and Rule 200 “Permit Requirements” introduced the following requirements in early 2008 that you should be aware of:

**1. Dust Control Coordinator**

A Dust Control Coordinator is required to be on-site at all times during primary dust-generating operations for any site of five or more acres of disturbed surface area that is subject to a Maricopa County dust control permit (Rule 310, Section 310). The contact information for the Dust Control Coordinator(s) must be provided in Question #5 of Part 2 of the Dust Control Permit Application.

**2. Dust Control Training Classes**

Comprehensive Dust Control Training:

The Dust Control Coordinator is required to successfully complete a Comprehensive Dust Control Training Class at least once every three years.

Basic Dust Control Training:

Site superintendents or other designated on-site representatives of the permit holder, if present at a site with more than one acre of disturbed surface area, is required to successfully complete a Basic Dust Control Training Class at least once every three years.

All water truck drivers and water pull drivers must successfully complete a Basic Dust Control Training Class at least once every three years.

More information on these training classes can be found by calling the Training Line at 602-372-1467 or at: [www.maricopa.gov/aq/divisions/compliance/dust/dust\\_control\\_training](http://www.maricopa.gov/aq/divisions/compliance/dust/dust_control_training) on the MCAQD's Dust Compliance Division web site.

**3. Visible emissions beyond property line**

Rule 310, Section 303.1 requires that the owner and/or operator of a dust generating operation shall not cause, suffer, or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated. Section 303.2 does provide an exception for dust-generating operations conducted within 25 feet of the property line.

**4. Subcontractor Registration**

A requirement of Rule 200 (Permit Requirements) is Subcontractor Registration. Subcontractors do not submit the Dust Control Permit Application in the role of “Applicant” but subcontractors engaged in dust-generating operations at a site that is subject to a Maricopa County dust control permit are required to register with the MCAQD (Rule 200, Section 306) and pay an annual fee as specified in Rule 280, Section 312. The subcontractor shall have its registration number readily accessible on-site while conducting any dust-generating operations and the registration number must be visible and readable by the public without having to be asked by the public. The registration and \$50.00 fee can be submitted by mail or in person at the One Stop Shop, 501 N. 44<sup>th</sup> Street, Suite 200, Phoenix, AZ 85008. Additional information on Subcontractor Registration requirements, submittal and current fees can be found at <http://www.maricopa.gov/aq/divisions/compliance/dust/subcontractorRegistration.aspx>

FREQUENTLY ASKED QUESTIONS (FAQs)

1. Do I need a Dust Control Permit?

- A. Activity: Whenever a dust-generating activity will disturb 1/10th acre (4,356 square feet) or more you must obtain a dust control permit before commencing the activity. This area of disturbance includes all areas under common control such as stockpiles, storage and equipment yards as well as the area being disturbed, even if they may be separated by public or private roadways (Rule 310, Section 302). No activity may commence before the permit is approved and, along with the Dust Control Plan, posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or otherwise kept available on-site at all times.
- B. Re-application: Dust Control permits are valid for one year from the date of approval. If the project still has a disturbed surface area of 0.10 acre (4,356 square feet) or more at the expiration of the one year permit term a new permit will need to be obtained by submitting a new Dust Control Application. The re-application process can take up to 14 calendar days once a complete application is received (not including time for postal delivery) so the application must be submitted at least 14 calendar days before the existing Dust Control permit expires.

2. How do I apply? What are the steps?

- A. Obtain Dust Control Permit Application Package: You can pick up the application package in person at either the Maricopa County Air Quality Department (MCAQD) Dust Compliance Division offices at 1001 North Central Avenue, Suite 400 in Phoenix, Arizona as well as the One Stop Shop at 501 North 44<sup>th</sup> Street, Suite 200 in Phoenix or download it from <http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx>
- B. Review the Instructions: Read the instructions thoroughly before beginning work on the application. The instructions are intended to accompany the application. The instructions constitute a body of experience and informed judgment by the Maricopa County Air Quality Department and dust control field inspectors to which you may properly resort for guidance, including details and explanations of the information required in the application. If you still have questions about the application you may find answers on the MCAQD website or by calling the Dust Compliance Division at 602-506-6010.
- C. Complete the Permit Application Form: Fully complete both the Applicant and the Project Information portions of the application, generally in the sequence it is written, using the instructions and Dust Compliance personnel for assistance.
- D. Complete the Dust Control Plan: A dust control plan is required and the third part of the package is designed to guide project personnel in developing a dust control plan that will be posted on-site, and the project will abide by on a day to day basis. Every category or sub-category must be completed, including an explanation for those that are designated non-applicable. A project may develop its own dust control plan as long as it conforms to Rule 310, Section 402.
- E. Review the Completeness Checklist: (see the first page of the Dust Control Permit Application Form, p. 23)
- F. Submit the completed permit application: When submitting the completed application to the One Stop Shop at 501 North 44<sup>th</sup> Street, Suite 200, Phoenix, Arizona 85008, include the appropriate fee for your Dust Control Permit Application (see FAQ #3 below). The completed application can be submitted to the One Stop Shop in person or by mail with payment by check or money order in either case. In addition, a credit card or cash may be used for payment if the application is submitted in person at the One Stop Shop location.

**Make checks payable to “Maricopa County Air Quality Department” or “MCAQD”.**

The completed permit will be sent to the Applicant’s address. Allow up to 14 calendar days for permit processing plus sufficient time for delivery by U.S. Postal Service First Class mail.

3. What will it cost?

Detailed information on current fees can be found in the Maricopa County Air Pollution Control Regulations Rule 280 – Fees or on the Department’s web site: [http://www.maricopa.gov/aq/divisions/permit\\_engineering/permit\\_fees.aspx](http://www.maricopa.gov/aq/divisions/permit_engineering/permit_fees.aspx)

Basic fees for a Dust Control Permit (permit valid for one year) are calculated according to the following:

- If total surface area disturbed is 0.1 acre to less than 1 acre, submit \$350.00.
- If total surface area disturbed is 1 acre or more, submit \$350.00 plus \$77.00 per acre (to a maximum of \$15,750).
- A late fee of \$100.00 is required for any application submitted in response to a violation.

PART 1.  
DUST CONTROL PERMIT APPLICATION INSTRUCTIONS

A. INSTRUCTIONS FOR COMPLETING THE DUST CONTROL PERMIT APPLICATION FORM

APPLICANT INFORMATION INSTRUCTIONS

1. Applicant

Please note that if you are completing this application and you are the “Applicant”, then you are the responsible authority for controlling all aspects of all the work accomplished on-site from initial groundbreaking to final stabilization. This includes canceling the Dust Control Permit when the project is complete and/or when you no longer have control over the day-to-day operations on the site. The Applicant must be the property owner, general/prime contractor, developer or lessee; a subcontractor cannot be the Applicant responsible for a dust control permit.

The Applicant’s name will show on the permit and will not change on re-applications or changes to the permit that retain the original permit number. The Applicant may or may not also be the party contracting to do the work at the site. The address provided will be put on all subsequent permits with the same Applicant name and will serve as the mailing address for the permit or other compliance issues. The Applicant will be the responsible party for the purposes of this project.

The Maricopa County Air Quality Department requires the Applicant Information to be fully and accurately completed, including full legal names of all entities and individuals (no DBA’s or trade names). For all Applicants, appropriate registration in the State of Arizona will be verified with the Arizona Corporation Commission or other applicable resources before a permit will be issued.

2. Parent Company if Applicant is a wholly owned subsidiary

If the Applicant is a wholly owned subsidiary provide full information for the parent company as well. If the parent company has a local or regional presence, use that location and provide contact information for the highest ranking official at that location.

3. Applicant President/Owner

Provide contact information for the highest ranking, local or regional company official of the Applicant.

4. Property Owner/Developer, if not Applicant

Include information regarding the property owner/developer, if different from the Applicant.

5. Dust Control Coordinator

Any site with five acres or more of disturbed surface area subject to a permit issued by the Control Officer requiring control of PM<sub>10</sub> emissions from dust-generating operations requires at least one designated Dust Control Coordinator, with a valid dust training certification identification card that is readily accessible, on-site at all times during primary dust-generating operations per Rule 310, Section 310. The Dust Control Coordinator is required in Rule 310, Section 309.2 to complete a Comprehensive Dust Control Training Class at least once every three years, after which a unique identification badge will be issued to the coordinator and is to be referenced in Question #5 in the application. If there are multiple Dust Control Coordinators, list additional information on a separate sheet of paper and attach following the page this question is on. Changes to the Dust Control Coordinator list can be made with the appropriate form, such as the Dust Control Plan Change form, which can be found on the MCAQD Dust Control Compliance website at <http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx> or with a letter that clearly states the changes to be made as well as the permit and dust control plan that will be affected. A form is also available that applies to notifying the MCAQD that a site no longer needs a Dust Control Coordinator when the disturbed surface area of the site falls below five acres.

6. Primary Project Contact

For all projects, provide a Primary Project Contact that may be a Dust Control Coordinator or a different individual all together. Provide information in this question regarding the person the MCAQD can contact who is knowledgeable of the project site or state if this person is listed as the Dust Control Coordinator in the previous question. The phone number(s) provided should be able to reach the contact within four hours.

7. Certification by a Responsible Official of the Applicant

A Responsible Official of the Applicant is the person who will be contacted or named in any enforcement action initiated by the Maricopa County Air Quality Department or the Maricopa County Attorney's Office. Pursuant to Rule 310, Section 401.3, the signature on the Dust Control permit application shall constitute agreement to accept responsibility for meeting the conditions of the Dust Control permit and for ensuring that control measures are implemented throughout the project site and during the duration of the project.

- For a corporation, a corporate officer or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person, if the representative is responsible for the dust-generating operations in the subject application. Delegation of authority to such representative shall be approved in advance by the Maricopa County Air Quality Department, Dust Compliance Division.
- For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- For a municipality, state, federal, or other public agency, the principle executive officer or ranking elected official of that entity. Delegation of signature authority needs to be submitted in writing to the Maricopa County Air Quality Department, Dust Compliance Division.

8. Application completed by, (if other than Signatory)

Frequently, this person needs to be contacted to clarify information in the application or if there are questions regarding how the Dust Control Plan was filled out.

PROJECT INFORMATION INSTRUCTIONS

9. Name of Project

Name, if any, by which this project will be referred (e.g. Pleasant Hill Acres).

10. Project Location

Provide the best available information for the project's geographic location. If there is an on-site construction office or similar physical contact point this should be referenced. If no specific street address is available, provide a block number and street name, Maricopa County Assessor's parcel number, master plan community number, geographic coordinates or any other pertinent location information or description.

11. Project Location by Township (N or S), Range (E or W), Section (1-36)

The map code or grid location in Township/Range/Section (TRS) format is required and can be obtained from a Phoenix Metropolitan map book or from the Maricopa County Assessor's parcel description.

12. Brief Project Description

Describe the project that will be taking place on the site (e.g. 3-building commercial complex; custom home; weed control; demolition of two buildings; roadway improvement).

13. Will a basement or underground parking be excavated?

This information influences the volume of dust generating material that will be disturbed, moved, stored, and removed from the project location.

14. Will building occur on a pre-existing/prepared pad?

A pre-existing pad/prepared pad is considered to be on a parcel within an existing/prepared subdivision.

15. Size of Project

The size of the project is the total area that will be disturbed throughout the duration of the Permit. Include all unpaved staging areas, stockpiles, access and haul roads, parking, driveways, as well as storage (stated in acres). Be sure to separately notate the specific area of land to be graded if it is different in size than the total area. You will also need to indicate the estimated amount of import/export Bulk Material, as defined in Section 203 of Rule 310, to/from the project site. The estimated amount of import/export Bulk Material to/from the project site is for hauling purposes and may not match the cubic yards to be moved within the boundaries of the project.

16. Project Site Drawing

Maricopa County uses a project site drawing to delineate boundaries between separate projects, so one permit holder is not held responsible for another's work. It is used as a reference, so it does not need to be to scale. It should however be as accurate as possible. The drawing should be no larger than 8½" x 11". The Dust Control Permit Application Form contains an example of what this drawing should contain (see page 26), including the following minimum elements:

- Entire project site boundaries
- Area(s) to be disturbed with linear dimensions, usually in feet (including staging areas, stockpiles, access and haul roads, parking, driveways, and storage)
- Nearest main crossroads
- North arrow
- Access Point(s) – Planned exit locations onto paved areas accessible to the public

17. Is this a Re-application?

A permit is valid for 1 year after the date of approval. The re-application process may take up to 14 calendar days for review and processing (not including time for postal delivery) and must be approved **prior** to the expiration of the old permit. You must re-apply for a permit more than 14 calendar days before the original permit expires.

18. Estimated Project Start Date

Before Dust-Generating Operations may occur the permit must be approved, which may take up to 14 calendar days for review and processing of the permit application (not including time for postal delivery).

Project Start Date and Project Completion Date (next question) are used by Maricopa County to schedule inspection work load. This information is also used to determine if the same project is on-going or a subsequent dust-generating operation is taking place at the project location. If this is a re-application provide the original start date of the project.

19. Estimated Project Completion Date

The answer to this question may be a date beyond the last effective date of the permit that is being applied for; it is acceptable and encouraged to enter the actual Estimated Project Completion Date, not the end date of the permit period or some other modification. See Estimated Project Start Date (previous question) as well.

20. List of Soil Designations from Appendix F

Soil Texture

Rule 310, Section 402.5 requires a Dust Control Plan for construction projects one acre or larger (except for routine maintenance and repair done under a block permit) to include the following information:

- Soil texture naturally present at the dust-generating operation
- Soil texture to be imported onto the dust-generating operation

The information to answer this questions may be obtained from Appendix F of the Maricopa County Air Pollution Control Regulations or attach a copy of a geotechnical report if the site has been tested. For more detail on soil textures and types see the "Appendix – Additional Information on Key Topics" on page 15.

21. Asbestos NESHAP Notification requirements

Any Project that includes demolition or renovation of any existing facilities must address asbestos NESHAP issues that pertain to the Project. Question #21, including all of its sub-questions, must be fully completed to demonstrate whether or not there are any existing asbestos NESHAP issues and compliance with applicable rules before a Dust Control Permit can be issued. A separate notification and fee for demolition and/or renovation activities may be required. More information on the NESHAP Notification program and fees can be found at: [http://www.maricopa.gov/aq/divisions/compliance/air/asbestos\\_neshap/Default.aspx](http://www.maricopa.gov/aq/divisions/compliance/air/asbestos_neshap/Default.aspx) and [http://www.maricopa.gov/aq/divisions/permit\\_engineering/permit\\_fees.aspx](http://www.maricopa.gov/aq/divisions/permit_engineering/permit_fees.aspx) respectively.



B. INSTRUCTIONS FOR COMPLETING THE DUST CONTROL PERMIT APPLICATION DUST CONTROL PLAN

Rule 310, Section 402 (Dust Control Plan requirements) requires the submission of a Dust Control Plan with your application. You may fill out Part 3 of the Dust Control Permit Application and submit it as your Dust Control Plan or you may write your own Dust Control Plan describing all dust control measures to be used during the project and submit it for approval as your Dust Control Plan. Once approved the Dust Control Plan, along with the permit, must be posted in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or otherwise kept available on-site at all times (Rule 310, Section 409). Additionally, according to Rule 310, Section 401.2 complete copies of the approved Dust Control permit, including the Dust Control Plan, must be supplied to all project contractors and subcontractors.

Changes to aspects of the Dust Control Plan may be made after the application is approved by submitting a Permit Plan Change Form to the Maricopa County Air Quality Department. See below for more information regarding making changes to an approved Dust Control Permit and Dust Control Plan.

DUST CONTROL PLAN GENERAL INFORMATION

Unlisted Dust Control Measures

You may choose to use dust control measures not currently listed in Part 3 of the Dust Control Permit Application. Such unlisted dust control measures will be reviewed by the Maricopa County Air Quality Department which may require additional information regarding the control measure effectiveness. Any unlisted dust control measure must clearly meet the dust control requirements of Rule 310 for any dust-generating operation.

MCAQD will apply the following minimum criteria when evaluating any unlisted dust control measures:

- The dust control measure technique is a new or alternative technology that is demonstrated to be equally or more effective in meeting the dust control requirements than the existing dust control measures provided in the Dust Control Permit Application.
- Site logistics do not practically allow for implementation of a listed dust control measure as written (e.g., road width or pre-existing barriers limit the size or width of a gravel pad).
- The owner and/or operator demonstrates that a listed dust control measure is technically infeasible due to site-specific or material-specific conditions, such that implementation of the dust control measure will not provide a benefit in reducing fugitive dust (e.g., pre-soaking screened, washed rock when handling).

Written explanation and/or documentation may be required when including unlisted dust control measures in a Dust Control Permit Application.

Opacity

Rule 310, Section 303 (Visible emissions requirements for Dust-Generating Operations) requires visible fugitive dust emissions to not exceed 20% opacity. As a general rule of thumb, if at any time you can see dust being generated by equipment operations, it is already at least 10% opacity.

Opacity is measured by looking through the dust plume, while the sun is at your back. If more than 20% of the background is obscured, then the opacity is greater than 20%. Appendix C – Fugitive Dust Test Methods contains information and other sources that more fully describe this concept. (See [http://www.maricopa.gov/aq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx) for an online version of Appendix C).

Making Changes to an Approved Dust Control Permit and Dust Control Plan

You are allowed to make changes to aspects of your approved Dust Control Permit and Dust Control Plan. Maricopa County has permit modification forms available at 1001 N. Central Avenue, 4<sup>th</sup> floor, or you can download permit modification forms from: <http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx>

You might have to change your Dust Control Plan if fugitive dust emissions from your project exceed the standards in Rule 310, even though you are following your Dust Control Plan. You might also have to change your Dust Control Plan if the acreage for your project changes or if the permit holder changes.

If you change your Dust Control Plan because you have been notified that fugitive dust emissions from your project exceed the standards in Rule 310, even though you are following your Dust Control Plan, then you must submit a revised Dust Control Plan to the Control Officer within three working days of being notified that your original Dust Control Plan is not effective. During the time that you are preparing revisions to your Dust Control Plan, you must still comply with all of the requirements of Rule 310.

In order to change your Dust Control Permit and/or Dust Control Plan for any other reason, Maricopa County accepts the following permit modification forms:

Parcel Sale Notification

Form requires applicant name and address, parcel(s) sold, date sold, and buyer name and address.

Permit Name Change Request

Form requires existing permit holder name and address, new Applicant name and address, and reason for the permit name change. Appropriate registration in the State of Arizona will be verified with the Arizona Corporation Commission or other applicable resources as is the case with new applications. The previously approved Dust Control Plan can stay in effect or a new Dust Control Plan can be submitted for review and approval.

Permit Cancellation Request

Form requires permit holder name and address, project location, reason for cancellation, verification that no further soil disturbing construction activities will occur, that soils have been permanently stabilized, or that all applicable rules have been satisfied. You must cancel your Dust Control Permit when your project is complete or when you no longer have control over the day-to-day operations on the site.

Permit Acreage Increase Request

Form requires permit holder name & address, reason for acreage change, and the new acreage. The original Dust Control Permit expiration date will not change, it will remain the same. A new site plan showing the increased site area must be submitted as well as the appropriate fee corresponding to the additional acreage amount.

- Sites that increase to 1 acre or more may require modifications to the originally submitted Dust Control Plan.
- Sites that increase to five acres or more require a project information sign. (Rule 310, Section 308)

Permit Plan Change

Form requires permit holder name and address, reason for the change, and areas of the plan to be changed. If applicable, a revised Dust Control Plan must be submitted with the form and a new site plan may be required.

Dust Control Coordinator Change Notification

Form is to be used when a site no longer requires a Dust Control Coordinator but is still active. A site visit will be required for verification, a Primary Project Contact must be selected, and a new site plan may be required.

Control Measures

Water

When planning a contingency control method, do not choose water if it is already your primary control method. Maricopa County assumes that you will apply enough water to control dust, until it becomes an infeasible option.

Ceasing operations

Keep in mind that weather conditions play a big part in dust control and may require that you cease operations. While not appropriate in all situations, ceasing operations is an acceptable contingency measure many businesses currently use. Due to the common use of this control measure and to clarify when its use is appropriate the cease operations option has been included as a contingency option in several places in the Dust Control Plan. At the least it requires you to stop operations, evaluate why your primary control measure is not working, and make corrections. Ceasing operations lasts as long as it takes to resolve or abate the dust control issue.

Vehicle speed

Vehicle speed is not an acceptable dust control measure for all dust-generating operations. Where vehicle speed is an option for dust control, you must indicate the maximum number of vehicle trips that will be allowed, how the speed of such vehicles will be limited, and what areas or roads the limits will apply to.

Vegetative ground cover

If you choose “establish vegetative ground cover” as a control measure, you must comply with at least one of the following standards. These standards are also described in Rule 310, Section 304.3 – Stabilization requirements for Dust-Generating Operations – Disturbed Surface Area:

- Maintain a flat vegetative cover (i.e., attached/rooted vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- Maintain a standing vegetative cover (i.e., vegetation that is attached/rooted with a predominant vertical orientation) that is equal to or greater than 30%;
- Maintain a standing vegetative cover (i.e., vegetation that is attached/rooted with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
- Maintain a percent cover that is equal to or greater than 10% for non-erodible elements.

Surface gravel, recycled asphalt, or other suitable material

If you choose “apply and maintain surface gravel, recycled asphalt, or other suitable material” as a control measure for unpaved haul roads/access areas, you must comply with the following standard. This standard is also described in Rule 310, Section 304.2 – Stabilization requirements for Dust-Generating Operations – Unpaved Haul/Access Roads:

- Do not allow visible dust emissions to exceed 20% opacity and either do not allow silt loading to be equal to or greater than 0.33 oz/ft<sup>2</sup> or do not allow silt content to exceed 6%.

If you choose to “apply and maintain surface gravel, recycled asphalt, or other suitable material” as a control measure for unpaved parking areas, you must comply with the following standard. This standard is also described in Rule 310, Section 304.1 – Stabilization requirements for Dust-Generating Operations – Unpaved Parking Lot:

- Do not allow visible fugitive dust emissions to exceed 20% opacity and either do not allow silt loading to be equal to or greater than 0.33 oz/ft<sup>2</sup> or do not allow silt content to exceed 8%.

More detail on opacity and silt loading can be found in Appendix C – Fugitive Dust Test Methods at [http://www.maricopa.gov/aq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx)

DUST CONTROL PLAN CONTROL MEASURES INSTRUCTIONS

What follows is a listing of the ten category headings (A-J) that corresponds to the same category headings (A-J) in Part 3 of the Dust Control Permit Application. Under each of the ten category headings (A-J) that follow are questions to ask and concepts to consider when designing your Dust Control Plan. You must comply with the work practice standards described in Rule 310 and you must implement, as applicable, the dust control measures in Rule 310, Section 305. Section 305 describes primary and contingency dust control measures for a variety of dust-generating operations.

When completing the Dust Control Permit Application, use this listing to select dust control measures for your project. Changes to the Dust Control Plan may be made after the application is approved by submitting a Permit Plan Change Form to the Maricopa County Air Quality Department. See information provided previously (p. 8) regarding making changes to an approved Dust Control Permit and Dust Control Plan.

EXAMPLES of how to complete Control Measures and Water Tables can be found on pages 19-22.

A. Vehicles/Motorized Equipment

A.1 Unpaved Staging Areas, Unpaved Parking Areas, and Unpaved Material Storage Areas

What areas have you set aside for parking, including areas where your employees and contractors will be parking their vehicles? What areas have you set aside for material staging? How will you keep vehicles, including the public, employees, subcontractors, utilities, and project inspectors, in areas intended for travel? Paving is acceptable as a primary control measure, if paving is done at the beginning of a project.

A.2 Unpaved Access Areas/Haul Roads

Will you be operating, hauling, or delivering equipment or materials using unpaved areas? Unpaved haul roads/access areas are unpaved roads or designated access areas for vehicles or delivery trucks. On most single residential sites, the haul road is typically the future driveway. Paving is acceptable as a primary control measure, if paving is done at the beginning of a project.

B. Disturbed Surface Areas

B.1 Before Active Operations occur

Create a plan to minimize dust before you start site work. For example Rule 310, Section 305.11 describes dust control measures to implement before site work begins. According to Section 305.11 you must either pre-water the site to depth of cuts, allowing time for penetration, or you must phase work to reduce the amount of disturbed surface areas at any one time.

If you choose to pre-water the site, you should pre-water the areas to be disturbed prior to commencing a dust-generating operation. A rule of thumb is 1 acre-foot of water (325,851 gallons) per acre of land. Pre-watering areas to depth of cuts will reduce the amount of water required for dust control. Pre-watering does not mean flooding the area to be disturbed, which may make the area unworkable. Nor does it mean allowing the watered area to dry-out before the dust-generating operation occurs, since that would prevent adequate dust control.

If you choose to phase work as a dust control measure to reduce the amount of disturbed surface areas at any one time, you must show how you will phase the project to create the least amount of disturbance at any one time. You may use the project site drawing to show the various project phases, along with a time line showing relative start and stop times. Indicate on the application that you have shown the various project phases on the project site drawing.

B.2 During Active Operations

Water must be applied continuously in front of or in conjunction with a scraper/grader/dozer. Water applied behind equipment is usually intended for compaction purposes and not dust control. If a water truck is required to leave the project site for refilling, the contingency measure must be implemented, as needed, to comply with Rule 310, Section 303 – Visible emissions requirements for Dust-Generating Operations.

If you choose to limit vehicle speed, you must indicate the maximum number of vehicle trips that will be allowed and how the speed of such vehicles will be limited.

B.3 Stabilization for any inactive period, of any length, 24 hours per day, seven days per week including weekends, after work hours, holidays

How are you going to stabilize your site during non-work hours including any and all times there are no active operations occurring but the site has not been permanently stabilized? How will you control wind generated dust?

B.4 Permanent Stabilization of Disturbed Surface Areas required within ten days following the completion of the Dust-Generating Operation if finished for a period of 30 days or longer

How will the open areas of the site be permanently stabilized? How will the site be stabilized if construction is halted?

Open areas and vacant lots need to remain stabilized (i.e., maintain a visible crust, vegetation, or surface gravel) and inaccessible to motorized vehicles. When your site is permanently stabilized and your project is complete, you should cancel your Dust Control Permit. Maricopa County has permit cancellation request forms available at 1001 N. Central Avenue, 4<sup>th</sup> Floor, or you can download the form from: <http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx>

C. Bulk Material Handling

C.1 Off-Site Hauling onto Paved Areas Accessible to the Public

Will you be conducting debris clean up or lot clean up? Will you be exporting materials?

C.2 Hauling/Transporting within the Boundaries of the Work Site but not crossing a Paved Area Accessible to the Public

Will you be moving dirt or rock from one area to another area on your site?

C.3 Hauling/Transporting within the Boundaries of the Work Site and Crossing and/or accessing a Paved Area Accessible to the Public

Crossing a paved area is when you are traveling perpendicular to the paved area, typically entering and leaving it with the primary purpose of arriving at a destination on the other side. If you are not crossing a paved area (not traveling perpendicular to a paved area), then you are traveling along the paved area. Traveling along the paved area may take you outside the work area, unless such area has been barricaded to public travel.

C.4 Bulk Material Stacking, Loading, and Unloading Operations

Will you be trenching, backfilling, and/or importing/exporting Bulk Material?

Stacking, loading, and unloading operations include any time Bulk Materials are loaded into a truck or when materials are put into spoils piles from trenching operations.

If you choose to use water to control dust for cut and fill activities, a rule of thumb is (1) 10,000 gallon water pull for each 7,000 cubic yards of material moved per day. When determining the total amount of water necessary for a project, another rule of thumb is that it takes at least 30 gallons of water to control dust from each cubic yard of material to be moved.

C.5 Open Storage Piles

How will you control dust from storage or spoils piles? Will you have spoils and/or storage piles for any length of time?

Open storage piles include piles that are on-site for any length of time. If you apply water or dust suppressant(s) to open storage piles when not conducting stacking, loading, and unloading operations, make sure that you limit unauthorized vehicle access to the area.

D. Trackout, Carry-out, Spillage, and Erosion

D.1 Trackout Control Device

What will you use as a trackout control device if trenching removes an existing gravel pad? What will you use as a control device during curb and gutter installation? How will you direct traffic to the designated exit locations and restrict traffic from using other exit points?

Trackout control devices are preventative devices intended to reduce the amount of dirt transferred onto paved areas and entrained into the atmosphere. Trackout control devices are required at every exit to a paved area accessible to the public (any retail parking lot or public roadway that is open to public travel primarily for purposes unrelated to the dust-generating operation) for job sites 2 acres or larger or when 100 cubic yards of bulk material are hauled on-site or off-site per day. Trackout control devices include, but are not limited to, the following:

Gravel Pad

A layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter that is maintained at the point of intersection of a paved area accessible to the public and a work site entrance to dislodge mud, dirt, and/or debris from the tires of motor vehicles and/or haul trucks, prior to leaving the work site.

Grizzly or Rumble Grate

A device (i.e., rails, pipes, or grates) used to dislodge mud, dirt, and/or debris from the tires and undercarriage of motor vehicles and/or haul trucks prior to leaving the work site.

Paving

Application and maintenance of asphalt, concrete, or other similar material to a roadway surface (i.e., asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).

Wheel Wash System

A system, station, or device either temporary or permanent, that utilizes a bath or spray of water for the purpose of cleaning mud, soil, and rock from the tires and undercarriage of vehicles to prevent tracking of those materials onto paved surfaces.

Rule 310, Section 306 addresses dust control measures for trackout control. According to Section 306 you must prevent trackout by installing, at all access points to the site, a trackout control device such as a grizzly or rumble grate, a wheel wash system, or a gravel pad, defined in Rule 310, Section 217 to be at least 30 feet wide, 50 feet long, and 3 inches deep. Or you must pave starting from the point of intersection with a paved area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

It is a violation of Rule 310 if your site is required to have a trackout control device and does not, regardless of whether trackout is present.

D.2 Cleaning

Trackout/carry-out is any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto a paved area accessible to the public. You are required to immediately clean trackout/carry-out extending 25 feet or more. Trackout/carry-out that is less than 25 feet requires cleaning by the end of the work day. During import/export operations and following rain events, cleaning may need to be done on a consistent basis to control trackout/carry-out.

Cleaning trackout/carry-out includes removing any and all bulk material that has been deposited onto public roadways, medians, gutters, and sidewalks. Cleaning trackout/carry-out can be accomplished by manually sweeping up the deposits, by operating a street sweeper or wet broom, or by power washing. Some street sweepers (e.g., street sweepers with steel brushes) are more efficient than others, especially on stubborn trackout/carry-out.

Be sure to check other applicable regulations. For instance, some work sites are located in areas where the paved areas may not be cleaned by power washing with water due to Storm Water Pollution Prevention Plans (SWPP), National Pollutant Discharge Elimination Standards (NPDES), or Arizona Pollutant Discharge Elimination System (AZPDES).

It is a violation of Rule 310 if you have not cleaned trackout/carry-out, regardless of whether a trackout control device is present. If a street sweeper has been chosen as the primary control measure and is needed immediately but is not available, then you must employ the contingency measure.

E. Weed Abatement by discing or blading

If this is a long project, will weed removal or weed control be an issue in the future? Weed abatement for the purpose of this question is the removal of a weed and its roots by turning over the soil, usually with a disc or blade implement, thereby disturbing the surface area and removing a means of stabilizing the surface area.

F. Blasting operations

Will blasting be conducted for removal of structural concrete? Is there an available site for stockpiling material? Will underlying material require blasting?

G. Demolition activities

If concrete removal quantity is sizable, is there an available dump site? Has dust control for this staging or storage area been addressed?

H. Wind Event

A “wind event” is when the 60-minute average wind speed is greater than 25 m.p.h. In category H, some control measures are to be used in the “nonattainment area” and some control measures are to be used in the “attainment area”. A “nonattainment area” is an area designated by the Environmental Protection Agency (EPA) as exceeding national ambient air quality standards based upon data collected through air quality monitoring.

Maricopa County does not meet the national ambient air quality standards for particulate matter (PM<sub>10</sub>). Consequently, Maricopa County is considered a nonattainment area for PM<sub>10</sub>. The general geographical boundary of Maricopa County’s PM<sub>10</sub> nonattainment area is as follows: Salt River Mountains on the south, Phoenix Mountains on the northwest, Estrella Mountains on the southwest, White Tank Mountains on the west, and Superstition Mountains on the east. Maricopa County’s PM<sub>10</sub> nonattainment area includes all cities within this geographical boundary.

What has been done to address a possible wind event when no one is on-site, such as on a weekend or a holiday?

I. Water

For categories A-H in Part 3 of the Dust Control Permit Application, for which you choose to “apply water” as a dust control measure, you must describe the size and number of pieces of the equipment that you will use to supply the water, and the size and number of pieces of equipment that you will use to apply the water.

Soil Rating. For the purpose of completing the minimum water availability tables, soil types have been simplified from the four ratings categories in the Appendix F Soil Map into two rating categories. A Severe rating includes clay, silty clay, and sandy clay while the Moderate rating includes all other soil types. (See pages 15-17 for additional information to assist in determining soil rating)

Water supply means how water will be supplied to the site. Equipment options for water supply include, but are not limited to, metered hydrant, water tower, and water pond.

Water application system means how water will be applied to the site. Equipment options for water application system include, but are not limited to, hoses, water truck, water pull, and water buffalo.

Minimum water availability means water supply in conjunction with water application system.

- A minimum water availability table is included for different construction phases to be used in Part 3 where “apply water” is chosen as a dust control measure.
- Each minimum water availability table lists the minimum amount of water that you must have available for the duration of the project for dust control and compaction in severe and moderate soil types.
- Use each minimum water availability table to determine the size and number for the equipment that you will use to supply the water and to apply the water.

Regardless of the minimum amount of water that you have available to your site or on your site and regardless of your water supply and water application, in no case shall you exceed 20% opacity. Test methods for opacity can be found in Appendix C of the Maricopa County Air Pollution Control Regulation. (See an online version of Appendix C at [http://www.maricopa.gov/aq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx) )

J. Dust Suppressants other than water

Although water is a dust suppressant, the information required by Table J in Part 3 in the Dust Control Permit Application should not include information on water supply and water application systems.

The information required by Table J in Part 3 of the Dust Control Permit Application is for all other dust suppressants that you use. Fill out the applicable areas in Table J in Part 3 of the Dust Control Permit Application. Be sure to attach information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application. Also, attach product specification(s) and application sheet(s) or label instructions.

Different types of soil require more intensive water use or the use of water in combination with dust suppressants, in order to meet the requirements of Rule 310. Brief descriptions of dust suppressants and related information can be found in “Appendix – Additional Information on Key Topics” in the next segment of these instructions.



C. APPENDIX – ADDITIONAL INFORMATION ON KEY TOPICS

GLOSSARY OF TERMS (A more complete list of definitions can be found in Rule 310, Section 200)

**Caliche** – Common in, and somewhat unique to, the southwestern United States is a soil component known as caliche. Caliche is defined as an amorphous (non-crystalline) mass of calcium carbonate (limestone) mixed with clay. Caliche is a general term for any secondary calcium carbonate (CaCO<sub>3</sub>) that forms in sediments or in voids and crevices within bedrock just below the surface in semiarid regions, as a result of soil-forming processes (pedogenic caliche) or ground-water evaporation (ground-water caliche). Caliche is material left behind by the evaporation of ground water or soil moisture that is no longer present at that level, although ground water may be present at much lower depths beneath the caliche.

**Disturbed Surface Area** – A portion of the earth's surface or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed native condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification. For the purpose of Rule 310, an area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area has been permanently stabilized.

**Dust-Generating Operation** – Any activity capable of generating fugitive dust, including but not limited to, land clearing, earthmoving, weed abatement by discing or blading, excavating, construction, demolition, bulk material handling, storage and/or transporting operations, vehicle use and movement, the operation of any outdoor equipment, or unpaved parking lots. For the purpose of Rule 310, landscape maintenance and playing on or maintaining a field used for non-motorized sports shall not be considered a dust-generating operation. However, landscape maintenance shall not include grading, trenching, or any other mechanized surface disturbing activities performed to establish initial landscapes or to redesign existing landscapes.

**Fugitive Dust** – The particulate matter not collected by a capture system that is entrained in the ambient air and is caused from human and/or natural activities, such as, but not limited to, movement of soil, vehicles, equipment, blasting, and wind. For the purpose of Rule 310, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from pile drivers, and does not include emissions from process and combustion sources that are subject to other rules in Regulation III-Control Of Air Contaminants of the Maricopa County Air Pollution Control Regulations.

APPLICABLE MARICOPA COUNTY AIR POLLUTION CONTROL REGULATIONS

1. Rule 200 (Permit Requirements), Section 305 (Dust Control Permit)

- Requires any dust-generating operation disturbing 0.10 acres (4,356 sq.ft.) or more to obtain a permit,
- Applies the provisions of Rule 310 (Fugitive Dust from Dust-Generating Operations) to Dust Control permits.

2. Rule 200 (Permit Requirements), Section 309 (Standards for Applications)

- Gives the Control Officer authority to design permit applications that contain all the information necessary to enable the Control Officer to make the determination to grant or deny a permit,
- Such applications can contain terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of the Maricopa County Air Pollution Control Regulations.

3. Rule 310 (Fugitive Dust from Dust-Generating Operations)

- Requires an owner and/or operator of a dust-generating operation to submit a Dust Control Plan with any Dust Control Permit as well as before commencing any routine dust-generating operation at a site that has obtained or must obtain a Title V, Non-Title V, or general permit under Maricopa County Air Pollution Control Regulations, Regulation II (Permits And Fees),
- Required from initial ground breaking through final stabilization,
- Valid for one year from the date of issuance,
- Re-application must be submitted at least 14 calendar days prior to the expiration date of the original permit, if 0.10 acres (4,356 sq.ft.) or more remain disturbed at the expiration of the original permit,
- Must describe all control measures to be implemented before, after, and while conducting any dust-generating operation, including during weekends, after work hours, and on holidays,
- Maricopa County approves, disapproves, or conditionally approves a Dust Control Plan, in accordance with the criteria used to approve, disapprove, or conditionally approve a permit,
- Failure to comply with the provisions of the approved Dust Control Plan and/or failure to comply with all other requirements of Rule 310 is deemed to be a violation of Rule 310,
- Once approved by the Control Officer, the Dust Control Permit and Dust Control Plan must be posted on-site.
- Any person who conducts Dust-Generating operations that require a Dust Control Plan shall keep a written record of self-inspection on each day Dust-Generating Operations are conducted. (Also referred to as a “Dust Control Log”)
- Permit holder must cancel the permit when the project is complete or when the permit holder no longer has control over the day-to-day operations on the site. (See pages 8-9 of the Instructions)

PROJECT INFORMATION SIGN

For sites that are five acres or larger a project information sign must be posted and maintained at the main entrance to the project where members of the public can easily view and read the sign (Rule 310, Section 308). The sign must have a white background with black block lettering that is at least four inches high and contain at least the following information:

- Project name and permittee's name;
- Current Dust Control permit number and expiration date;
- Name and local phone number(s) of person(s) responsible for dust control matters; and
- Text stating: “Dust complaints? Call Maricopa County Air Quality Department – (Insert the accurate Maricopa County Air Quality Department complaint line telephone number).”

SOIL TEXTURE AND TYPE CLASSIFICATION SUMMARY

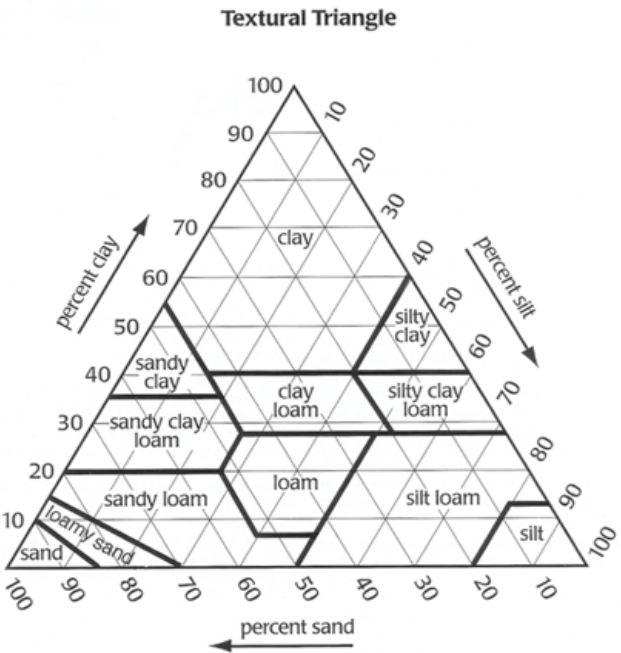
According to Rule 310, Section 402.5 – Dust Control Plan Requirements for construction projects one acre or larger (except for routine maintenance and repair done under a block permit), the soil texture that is naturally present and the texture of any soil that will be imported to the site must be designated. (See Question #20)

Soil texture is the single most important physical property of the soil. Knowing the soil texture alone will provide information about: (1) water flow potential, (2) water holding capacity, and (3) suitability for many urban uses. Soils can be divided into three basic classifications: sands, silts, and clays. (Caliche, commonly found in the Southwest, is basically a form of clay. See Glossary of Terms, p. 14 of the Instructions for more information regarding caliche).

There is great variation within the three basic classifications: sands, silts, and clays, but these classifications will suffice for the purpose of choosing appropriate dust control measures for a work site.

Soils are visually classified by the Unified Soil Classification System on boring logs. Grain-size analysis and Atterberg Limits Tests are often performed on selected samples, and the results entered onto a plasticity chart, to aid in classification. The classification system is outlined in the chart on page 16 of the Instructions. For a more detailed description of the system, including plasticity and liquid limits, see "The Unified Soil Classification System" ASTM Designation D2487 at <http://www.astm.org/Standards/D2487.htm>

Once the amount of sand, silt, and clay is known, you can give the soil a texture class name. These names change depending on how much of each type of particle is in the soil. The textural triangle (shown below) is used to determine the names of the textural classes.



Different textural classes will require more intensive water use or the use of water in combination with dust suppressants (see the tables on pages 16 and 17 of the Instructions), so that visible fugitive dust emissions do not exceed 20% opacity in accordance with Rule 310, Section 303 – Visible Emissions requirements for Dust-Generating Operations. Test methods for opacity can be found in Appendix C of the Maricopa County Air Pollution Control Regulations (see Appendix C – Fugitive Dust Test Methods at [http://www.maricopa.gov/aq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx) )

Unified Classification System for Soils

Major Division				Group Symbol	Typical Description
Coarse-Grained Soils (less than 50% passes No. 200 sieve)	Gravels (50% or less of course fraction passes No. 4 sieve)	Clean Gravels (less than 5% passes No. 200 sieve)		GW	Well graded gravels, gravel-sand mixtures or sand-gravel-cobble mixtures
		Gravels With Fines (more than 12% passes No. 200 sieve)	Limits plot below "A" line & hatched zone on plasticity chart	GP	Poorly graded gravels, gravel-sand mixtures, or sand-gravel-cobble mixtures
				GM	Silty gravels, gravel-sand-silt mixtures
			Limits plot above "A" line & hatched zone on plasticity chart	GC	Clayey gravels, gravel-sand-clay mixtures
	Sands (more than 50% of course fraction passes No. 4 sieve)	Clean Sands (less than 5% passes No. 200 sieve)		SW	Well graded sands, gravelly sands
		Sands With Fines (more than 12% passes No. 200 sieve)	Limits plot below "A" line & hatched zone on plasticity chart	SP	Poorly graded sands, gravelly sands
				SM	Silty sands, sand-silt mixtures
			Limits plot above "A" line & hatched zone on plasticity chart	SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (50% or more passes No. 200 sieve)	Silts (limits plot below "A" line & hatched zone on plasticity chart)	Silts Of Low Plasticity (liquid limit less than 50)		ML	Inorganic silts, clayey silts with slight plasticity
		Silts Of High Plasticity (liquid limit more than 50)		MH	Inorganic silts of high plasticity, silty soils, elastic silts
	Clays (limits plot above "A" line & hatched zone on plasticity chart)	Clays Of Low Plasticity (liquid limit less than 50)		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		Clays Of High Plasticity (liquid limit more than 50)		CH	Inorganic clays of high plasticity, fat clays, silty and sandy clays of high plasticity
Note: Coarse-grained soils with between 5% & 12% passing the No. 200 sieve and fine-grained soils with limits plotting in the hatched zone on the plasticity chart to have dual symbol.					

SOIL TEXTURE AND TYPE MAP SUMMARY

The soil map in Appendix F of the Maricopa County Air Pollution Control Regulations (a large printed soil map is available for viewing at the One Stop Shop while a smaller, downloadable version can be found at: [http://www.maricopa.gov/aq/divisions/planning\\_analysis/rules/docs/AppendixF-0404.pdf](http://www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/AppendixF-0404.pdf) ) designates soil texture ratings within the PM<sub>10</sub> nonattainment area. See page 13 for more information regarding the PM<sub>10</sub> nonattainment area in Maricopa County.

Four soil texture ratings in the table below – severe, moderate, slight, and very slight – refer to a soil's potential to create PM<sub>10</sub>. The table summarizes the soil map in Appendix F and designates control measures that could be used with each soil type. Also, the table shows which soil texture rating relates to which group symbol used in the chart of the Unified Classification System for Soils previously on this page.

The soil map in Appendix F is to be used to identify soil types for purposes of completing Question #20 of the Dust Control Permit Application, in lieu of submitting actual measured soil types with your Dust Control Plan. However, the actual measured soil types take precedence over any mapped soils.

If any requirements stated in the Instructions or in the Dust Control Permit Application contradict recommendations of a site geotechnical report, attach a copy of the report to the Dust Control Plan. The report will be incorporated as part of the Dust Control Plan.

Summary of Soil Map in Appendix F of the Maricopa County Air Pollution Control Regulations

Map Color Designations	Soil Texture Ratings	Soil Types	Group Symbols	Characteristics Of Soil	Control Measures
Red	Severe	Clay Silty Clay Sandy Clay	CL CH	• Low hydraulic conductivity (the rate at which water can flow through the soil) • Retains water • Hardens in heat of summer • Warms-up slower in spring	Apply water Or Apply water and a dust suppressant
Orange	Moderate	Loam Silty Loam Clay Loam Sandy Clay	ML MH	• Retains more water than sandy soil • Drains well • Easier to work than clay	Apply water Or Apply water and a dust suppressant
Green	Slight	Very Fine Sandy Loam	SW SP SM SC	• Retains more water than sandy soil • Drains well • Easier to work than clay	Apply water
Light Yellow	Very Slight	Fine Sand Coarse Sand	GW GP GM GC	• High hydraulic conductivity (the rate at which water can flow through the soil) • Tends not to compact	Apply water

ADDITIONAL ASSISTANCE

You can reach the MCAQD Dust Compliance Division offices at 1001 North Central Avenue, Suite 400 in Phoenix, Arizona, by calling 602-506-6010, or on their website at [www.maricopa.gov/aq/divisions/compliance/dust](http://www.maricopa.gov/aq/divisions/compliance/dust)

Additional useful information and websites are listed below:

- Dust Compliance main webpage: [www.maricopa.gov/aq/divisions/compliance/dust/Default.aspx](http://www.maricopa.gov/aq/divisions/compliance/dust/Default.aspx)
- MCAQD Complaint Line for all complaints including dust related items: 602-506-6010
- Dust Compliance resources including:
  - Sample Dust Control Logs
  - Applications
  - Other Forms
  - Informational brochurecan be found at [www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx](http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx)
- Information on current fees can be found on the MCAQD's web site: [www.maricopa.gov/aq/divisions/permit\\_engineering/permit\\_fees.aspx](http://www.maricopa.gov/aq/divisions/permit_engineering/permit_fees.aspx)
- Questions concerning Asbestos NESHAP regulations should be referred to the Maricopa County's Asbestos NESHAP Coordinator at 602-506-6708 or 602-506-0421. Forms, contacts, regulations and additional information not covered in the application package may be obtained on the MCAQD website at [http://www.maricopa.gov/aq/divisions/compliance/air/asbestos\\_neshap/Default.aspx](http://www.maricopa.gov/aq/divisions/compliance/air/asbestos_neshap/Default.aspx)
- Maricopa County Air Pollution Control Regulations Rule 200 (Permit Requirements) and Rule 310 (Fugitive Dust from Dust-Generating Operations) which contain information regarding the requirements and work practices associated with this application can be found at: [www.maricopa.gov/aq/divisions/planning\\_analysis/AdoptedRules.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/AdoptedRules.aspx)
- Document Request Forms, in the event the permit and application are not received after the processing and mail period have passed: [www.maricopa.gov/materials/Document\\_Request/public\\_record\\_request.asp](http://www.maricopa.gov/materials/Document_Request/public_record_request.asp)
- Assistance in completing the application may be available by calling the Training Line at 602-372-1467 or online at: <http://www.maricopa.gov/aq/divisions/compliance/dust/Default.aspx>

DUST SUPPRESSANTS SUMMARY

Dust suppressants are defined in Rule 310 as: water, hygroscopic material, solution of water and chemical surfactant, foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the Environmental Protection Agency (EPA) or the Arizona Department Of Environmental Quality (ADEQ) or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.

Dust suppressants work by either agglomerating the fine particles, adhering/binding the surface particles together, or increasing the density of the road surface material. They reduce the ability of the surface particles to be lifted and suspended by either vehicle tires or wind and non-water suppressants do so with a minimum amount of added water and usually a longer useful life than water alone.

One important factor in evaluating dust suppressants is the long-term monetary cost versus that of water alone. Environmental impacts of both methods on water quality and plant life must also be considered.

More detail can be found on the MCAQD Dust Compliance website at: [www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx](http://www.maricopa.gov/aq/divisions/compliance/dust/resources.aspx)

DUST SUPPRESSANT CATEGORIES:

- 1. **Water-Attracting Chemicals:** Chlorides, Salts, Brine Solutions.
- 2. **Organic, Non-Bituminous Chemicals:** Lignosulfonates, Sulphite, Liquors, Tall Oil Pitch, Pine Tar, Vegetable Oils, Molasses.
- 3. **Electro-Chemical Stabilizers:** Sulphonated Petroleum, Ionic Stabilizers, Bentonite.
- 4. **Polymers:** Polyvinyl Acrylics, Acetates.
- 5. **Microbiological Binders:** Cryptogams, Blue-Green Algae Inoculants, Enzyme Slurries.

DUST SUPPRESSION TECHNOLOGIES:

In addition to categories of dust suppressants, the subject can also be divided by dust suppression technologies including the following:

- 1. **Wetting Agents:** Surfactant (see below) formulations that improve the ability of water to wet and agglomerate fine particles.
- 2. **Foaming Agents:** Surfactant formulations used to convert water and air into a dry, stable, small-bubbled foam with a consistency similar to shaving cream.
- 3. **Binding/Agglomerating Agents:** Performs similar functions as wetting and foaming agents but provides a longer residual effect than water alone and thus is used when it is either impractical or uneconomical to control dust using just water technologies.
- 4. **Crusting Agents:** Binding agents that are chemically similar to latex paint in that their primary active components are water-based latex polymers that cure to form a mechanically stable water-insoluble film.

DUST SUPPRESSION MATERIALS:

- 1. **Surfactants:** Surface-active agents, make water more efficient by making water “wetter”, lowering its surface tension allowing drops of water to spread out and contact surfaces more effectively
- 2. **Tackifiers:** Substances used with water to hold together mulches and other dust suppressants, binding small particles together without forming a hard crust
- 3. **Flocculants:** Chemicals that cause a dispersed colloidal system (such as clay) to coagulate and form flocs. Most flocculants are either multivalent cations such as calcium, magnesium, aluminum, or ion polymers. High pH, high salinity, and high temperature can also cause clay flocculation.

EXAMPLES FOR CORRECTLY COMPLETING PART 3 – DUST CONTROL PLAN

EXAMPLE FOR USE OF THE “NOT APPLICABLE” OPTION

Z.1 Operations

☐ P ☐ C Apply water (Fill out Category I, “Water” on pp. 37-41)

☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving

☐ P ☐ C Limit vehicle trips to space provided, list the number of employee speeds will be restricted to no more than 15 m.p.h. In the s/haul roads each day (including and a description of how vehicle

☒ ☐ C Cease operations, NO measure.

☐ P ☐ C Other:

This is an INCORRECT EXAMPLE.

WHY? If a Control Measure is “not applicable” you must provide an explanation for why.

Or, explain why this sub-category and its control measures are not applicable N/A

Z.1 Operations

☐ P ☐ C Apply water (Fill out Category I, “Water” on pp. 37-41)

☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving

☐ P ☐ C Limit vehicle trips to space provided, list the number of employee speeds will be restricted to no more than 15 m.p.h. In the ss areas/haul roads each day (including trucks) and a description of how vehicle

☒ ☐ C Cease operations, NO measure.

☐ P ☐ C Other:

This is a CORRECT EXAMPLE of a completed “not applicable” statement with a full explanation.

Or, explain why this sub-category and its control measures are not applicable N/A because there will not be any operations of this type being performed as part of this project



EXAMPLES FOR CORRECTLY COMPLETING PART 3 – DUST CONTROL PLAN (continued)

EXAMPLE FOR USE OF CHECKBOXES

Z.1 Operations

☐ P ☐ C Apply water (Fill out Category I, "Water" on pp. 37-41)

☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving

☐ P ☐ C Limit vehicle trips to space provided, list the number of employee speeds will be restricted to no more than 15 m.p.h. In the areas/haul roads each day (including streets) and a description of how vehicle speeds will be restricted.

☒ P ☐ C Cease operations, NO other control measures.

☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

This is an INCORRECT EXAMPLE.

WHY? If a Control Measure checkbox is blacked out it CANNOT be used.

Z.1 Operations

☒ P ☐ C Apply water (Fill out Category I, "Water" on pp. 37-41)

☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving

☐ P ☐ C Limit vehicle trips to space provided, list the number of employee speeds will be restricted to no more than 15 m.p.h. In the areas/haul roads each day (including streets) and a description of how vehicle speeds will be restricted.

☐ P ☒ C Cease operations, NO other control measures.

☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

This is a CORRECT EXAMPLE of how to use available Control Measure checkboxes and avoid using non-available Control Measure checkboxes.

EXAMPLES FOR CORRECTLY COMPLETING PART 3 – DUST CONTROL PLAN (continued)

There are two main types of tables (with multiple variations) used in the "Category I. Water" portion of Part 3 of the Application. Following is an example of each of the main two table types and how to use each:

CATEGORY I. WATER, EXAMPLE 1:

Soil Texture Rating	Project Phase - Staging/Parking Areas/Storage Areas Including Landscaping Installation	
	Total Acres Disturbed	Minimum Water Available
Severe (clay, silty clay, sandy clay)	0 - 2 acres	375 - 750 gallons per day
	2 - 10 acres	750 - 3,500 gallons per day
	10 - 100 acres	3,500 - 35,000 gallons per day
	> 100 acres	> 35,000 gallons per day
Moderate (all other classifications)	0 - 2 acres	225 - 400 gallons per day
	2 - 10 acres	400 - 2,250 gallons per day
	10 - 100 acres	2,250 - 22,500 gallons per day
	> 100 acres	> 22,500 gallons per day

Average Daily Disturbance in Acres

8 acres

Number of Gallons per day

750 - 3,500 gal/day

Supply	Quantity and Size	Application	Quantity and Size
<input checked="" type="checkbox"/> Metered Hydrant	(1) 2"	<input type="checkbox"/> Hose	
<input type="checkbox"/> Water Tower		<input checked="" type="checkbox"/> Water Truck	(1) 2,000 gal
<input type="checkbox"/> Water Pond		<input type="checkbox"/> Water Pull	
<input type="checkbox"/> Off-Site		<input type="checkbox"/> Water Buffalo	
<input type="checkbox"/> Other		<input type="checkbox"/> Other	

Example 1. Illustration:

- Assume the project has a disturbed area of 8 acres for staging, storage and some parking with a severe soil rating.
- Begin with the second line under the headings in the table above. This selection shows a range of 2 – 10 acres of Total Acres Disturbed in the Severe, Soil Texture Rating field.
- Following this to the Minimum Water Available column on the right gives a range of 750 – 3,500 gallons per day. This means that even if an amount of water toward the lower end of the range is being used (750 gallons per day) the project must have the availability of water, along with the equipment to apply it, up to the highest end of the range (3,500 gallons per day), should conditions demand the higher application.
- The total water needed and its distribution must now be reflected in the quantity and size of the water supply methods as well as the quantity and size of the water application methods that you enter in their respective columns.

EXAMPLES FOR CORRECTLY COMPLETING PART 3 – DUST CONTROL PLAN (continued)

CATEGORY I. WATER, EXAMPLE 2:

Soil Texture Rating	Project Phase - Mass Grading (Includes basements)	
	Minimum Water Available (November – February)	Minimum Water Available (March – October)
Severe (clay, silty clay, sandy clay)	5,000 gallons per acre per day	10,000 gallons per acre per day
	and 30 gallons per cubic yard of material moved	and 30 gallons per cubic yard of material moved
Moderate (all other classifications)	5,000 gallons per acre per day	10,000 gallons per acre per day
	and 30 gallons per cubic yard of material moved	and 30 gallons per cubic yard of material moved

Average Daily Disturbance in Acres 10 acres Number of Gallons per acre per day 10,000 gal/acre/day

Daily Minimum Water Availability 100,000 gallons per day AND 90,000 gallons for material moved  
(Number of Acres Disturbed) × (Number of Gallons per acre per day)

Supply	Quantity and Size	Application	Quantity and Size
<input checked="" type="checkbox"/> Metered Hydrant	<u>(1) 2"</u>	<input type="checkbox"/> Hose	
<input type="checkbox"/> Water Tower		<input checked="" type="checkbox"/> Water Truck	<u>(2) 5,000 gal</u>
<input checked="" type="checkbox"/> Water Pond	<u>(1) 700,000 gal</u>	<input checked="" type="checkbox"/> Water Pull	<u>(3) 10,000 gal</u>
<input type="checkbox"/> Off-Site		<input type="checkbox"/> Water Buffalo	
<input type="checkbox"/> Other		<input type="checkbox"/> Other	

Example 2. Illustration:

- Assume the project entails grading 10 acres and all 10 acres are to be graded each day for five days during the March thru October time period. Additionally, 3,000 cubic yards of material are to be removed over the five days.
- 10 acres x 10,000 gallons per acre per day = 100,000 gallons per day for all 10 acres, AND  
3,000 cubic yards x 30 gallons per cubic yard = 90,000 gallons for the five day period
- Total water need for all five days = 590,000 gallons
- The total water needed and its distribution must now be reflected in the quantity and size of the water supply methods as well as the quantity and size of the water application methods that you enter in their respective columns.



Maricopa County  
Air Quality Department

Return all applications to: **One Stop Shop**  
501 N. 44<sup>th</sup> Street, Suite 200  
Phoenix, Arizona 85008  
Phone (602) 372-1071 Fax (602) 372-1078

PART 2  
DUST CONTROL PERMIT APPLICATION FORM

For Office Use Only			
District #		Date Issued	
Permit #		Approved By	
Fee Paid/Acreage		Cross Streets	

IS MY APPLICATION COMPLETE?

- ☐ 1. **Dust Control Permit Application Form:** Completely answer all questions; fill in all blanks and check boxes as appropriate, in both the Applicant and Project Information areas of the Form. Attach a copy of the Project Site Drawing.
- ☐ 2. **Dust Control Plan:** Rule 310, Section 402 (Dust Control Plan requirements) requires the submission of a Dust Control Plan with your application. You may submit Part 3 of this application after completely filling in every category or sub-category; a primary and contingency control measure must be chosen for each or an explanation of why the category or sub-category is not applicable must be provided. Alternately, you may submit your own Dust Control Plan that conforms to Rule 310, Section 402 describing all dust control measures to be used during the project.
- ☐ 3. **Fee Payment:** Have the appropriate fee ready when submitting the completed permit application to the One Stop Shop referenced above, see the MCAQD website: [www.maricopa.gov/aq/divisions/permit\\_engineering/permit\\_fees.aspx](http://www.maricopa.gov/aq/divisions/permit_engineering/permit_fees.aspx) or FAQ #3 in the instructions. Fees can be paid with a check or money order when submitting the application in person or by mail. When submitting the application in person the fees may also be paid with a credit card or cash.

Applicant Information (See Instructions page 5)

**Applicant Information must be fully and accurately completed, including full legal names of entities and individuals (no DBA's or trade names). For all Applicants, appropriate registration in the State of Arizona will be verified with the Arizona Corporation Commission or other applicable resources before a permit will be issued.**

1. Applicant:

Relationship to property (Check all that apply):  
☐ Property Owner ☐ General/Prime Contractor ☐ Developer ☐ Lessee

Type of Entity:  
☐ Corporation ☐ Limited Liability Company or Partnership ☐ Sole Proprietor ☐ Individual ☐ Government

Name:

Address:

City:

State:

Zip:

Phone:

Fax:

E-Mail Address:

Local Mailing Address (if not the same as above):

Contractor License Number:

<b>2. Is Applicant a wholly owned subsidiary of another Company?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If " <b>Yes</b> ", please provide all requested information below. If " <b>No</b> ", please proceed to Question 3:			
<b>Parent Company (if Applicant is a wholly owned subsidiary):</b>			
Type of Entity: <input type="checkbox"/> Corporation <input type="checkbox"/> Limited Liability Company or Partnership <input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Individual <input type="checkbox"/> Government			
Name:			
Address:			
City:		State:	Zip:
Phone:		Fax:	
State of Incorporation or Registration:			
<b>3. Applicant President/Owner:</b>			
Name:			
Address:			
City:		State:	Zip:
Phone:		Fax:	
<b>4. Property Owner/Developer, if not Applicant:</b>			
Type of Entity: <input type="checkbox"/> Corporation <input type="checkbox"/> Limited Liability Company or Partnership <input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Individual <input type="checkbox"/> Government			
Name:			
Address:			
City:		State:	Zip:
Phone:		Fax:	
Contact Person:			
<b>5. Dust Control Coordinator:</b>			
<ul style="list-style-type: none"><li>At least one Dust Control Coordinator is required to be on-site at all times during primary dust-generating operations for any site with five acres or more of disturbed surface area subject to a permit issued by the Control Officer requiring control of PM<sub>10</sub> emissions from dust-generating operations</li><li>List additional Dust Control Coordinators on a separate sheet of paper and include following this sheet</li></ul>			
Name:			
Title:		Company Name:	
On-Site Phone:		Mobile:	Fax:
E-mail Address:			
Dust Control Badge ID Number:		Expiration Date:	
<b>6. Primary Project Contact:</b>			
<ul style="list-style-type: none"><li>Provide a Primary Project Contact for all sites with a disturbed surface area subject to a permit issued by the Control Officer requiring control of PM<sub>10</sub> emissions from dust-generating operations</li><li>State if the Primary Project Contact is already referenced in Question #5 above or provide all of the following:</li></ul>			
Name:			
Title:		Company Name:	
On-Site Phone:		Mobile:	Fax:
E-mail Address:			

<b>7. Certification by a Responsible Official of the Applicant:</b>	
<b>A Responsible Official of the Applicant is the person who will be contacted or named in any enforcement action initiated by the Maricopa County Air Quality Department or the Maricopa County Attorney's Office. Pursuant to Rule 310, Section 401.3, the signature on the Dust Control Permit Application shall constitute agreement to accept responsibility for meeting the conditions of the Dust Control Permit and for ensuring that control measures are implemented throughout the project site and during the duration of the project.</b>	
<b>Arizona Revised Statute § 13-2704 makes it a criminal offense to knowingly make a false material statement to a public servant in connection with an application for any benefit, privilege, or license.</b>	
I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in the Dust Control Permit Application, including Applicant Information, Project Information, and the Dust Control Plan, are true, accurate, and complete.	
Signature:	
Printed Name:	Title:
<b>8. Application completed by (if other than Signatory):</b>	
Signature:	
Printed Name:	Title
Phone:	Fax:
E-mail Address:	

**Project Information** (See Instructions page 6)

<b>9. Name of Project:</b>		
<b>10. Project Location:</b> (If address is not available, complete Other Location information as fully as possible)		
Address:		
City:	State: AZ	Zip:
Nearest Major Cross Street North/South:		
Nearest Major Cross Street East/West:		
Is this location:	<input type="checkbox"/> Unincorporated Area (County)	<input type="checkbox"/> Incorporated Area (City)
<b>Other Location information:</b> (If address is not available provide all information possible below)		
County Assessor's Parcel Number(s):		
Master Plan Community Number(s):		
Geographic Coordinates:		
<b>11. Project Location by Township (N or S), Range (E or W), Section (1-36):</b>		
Township:	Range:	Section:
<b>12. Brief Project Description:</b>		
<b>13. Will a basement or underground parking be excavated?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>14. Will building occur on a pre-existing pad/prepared pad?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>15. Size of Project:</b>		
Estimated acres to be graded:		
Estimated cubic yards of Bulk Material to be moved within the boundaries of the project:		
Estimated cubic yards of import Bulk Material:		
Estimated cubic yards of export Bulk Material:		
Total acres that will be disturbed throughout the duration of this Permit, including staging areas, stockpiles, access and haul roads, parking, driveways, as well as temporary storage yards:		

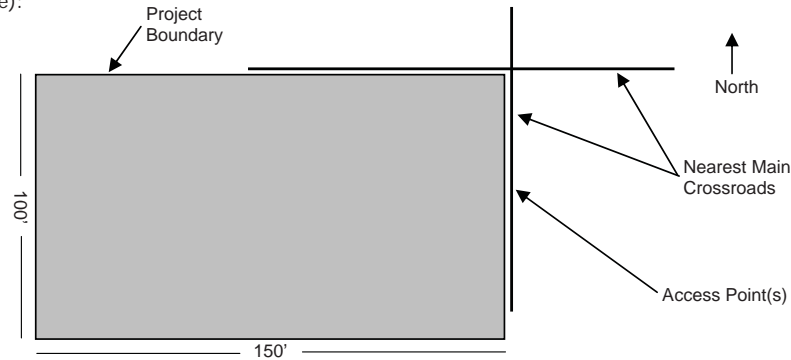
16. Project Site Drawing:

(NOTE: A Dust Control Permit *will not be issued unless a drawing is submitted*)

Attach a separate page (8½" × 11") with a drawing showing all of the following elements:

- Entire project site boundaries
- Area to be disturbed with **linear dimensions** (including staging areas, stockpiles, access and haul roads, parking, driveways, and storage)
- Nearest main crossroads
- North arrow
- Access Point(s) – Planned exit locations onto paved areas accessible to the public

Example (simplified, not to scale):



17. Is this a Re-application? ☐ Yes Previous Permit #

☐ No

A permit is valid for 1 year after the date of approval. **The re-application process may take up to 14 calendar days for review and processing (not including time for postal delivery) and must be approved prior to the expiration of the old permit. You must re-apply for a permit more than 14 calendar days before the original permit expires.**

18. Estimated Project Start Date (month/day/year). If this is a re-application, list the **original** project start date:

19. Estimated Project Completion Date (month/day/year), the date may be beyond the one year duration of the permit:

20. List Soil Designations from Appendix F in Maricopa County Air Pollution Control Regulations or, if attaching a copy of the site geotechnical report, check here ☐

For construction projects one acre or larger, except for routine maintenance and repair done under a block permit, designate in the table below which soil texture is naturally present on the work site and which soil texture will be imported onto the work site (if applicable). If the soil on the work site has been tested, then you should rely on the test results to complete the table and you should attach a copy of the site soil report (boring logs) to this application. If the soil on the work site has not been tested, then use Appendix F in the Maricopa County Air Pollution Control Regulations to complete the table below.

Texture of soil naturally present on work site	Texture of soil to be imported onto work site

21. Asbestos NESHAP Notification requirements: (answer **all** subparts of Question 21 below)

**SEPARATE notification and fee for demolition/renovation activities may be required.**

Questions concerning the Asbestos NESHAP regulation should be referred to the Maricopa County's Asbestos NESHAP Coordinator at 602-506-6708 or 602-506-0421. Forms, contacts, regulations and additional information not covered below may be obtained at: [http://www.maricopa.gov/aq/divisions/compliance/air/asbestos\\_neshap/Default.aspx](http://www.maricopa.gov/aq/divisions/compliance/air/asbestos_neshap/Default.aspx)

Be advised that Maricopa County has been delegated regulatory jurisdiction for all regulated facilities within the boundaries of Maricopa County, including within all city boundaries contained in the county. All regulated facilities scheduled for demolition or renovation (defined below) must be inspected by a currently certified Asbestos Hazard Emergency Response Act (AHERA) Building Inspector. There is no waiver of this requirement based on the age of the facility. The inspection must be performed within the 12 months preceding commencement of demolition or renovation activity.

**Demolition:** The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of a facility.

**Renovation:** Altering a facility or one or more facility components in any way, including the stripping or removal of Regulated Asbestos Containing Material (RACM) from a facility component.

21a. Does the Project include demolition or renovation? ☐ Yes ☐ No

If "Yes", provide all requested information for Questions 21b to 21d. If "No", proceed to Part 3:

21b. Description of demolition/renovation activities:

21c. Has the property ever been used as a ranch, farm, business or any other commercial or industrial purpose? ☐ Yes ☐ No

21d. Is there a guesthouse, more than one livable structure on the property, or is work being done in conjunction with another property in the area? ☐ Yes ☐ No

If "Yes" to either Question 21c or 21d then skip Question 21e and provide all requested information for Questions 21f to 21i as the residential property exemption does not apply,

If "No" to both Question 21c and 21d, continue and answer Question 21e:

21e. Is this a residential property? ☐ Yes ☐ No

If "Yes", proceed to Part 3. If "No", provide all requested information for Questions 21f to 21i:

21f. Description of each structure:

21g. Has an asbestos inspection been conducted by an AHERA Certified Building Inspector within the last 12 months before the time of scheduled activities? ☐ Yes ☐ No

If "Yes", provide requested information for Question 21h. If "No", proceed to Question 21i:

21h. Date of AHERA inspection:

21i. Has a 10-Day NESHAP Notification been submitted? ☐ Yes ☐ No

If "Yes", provide all requested information for Questions 21j to 21l.

**If "No", you need to file the appropriate form(s), therefore, check online or call the Coordinator as referenced above.**

21j. 10-Day NESHAP Notification submittal date (Attach a copy):

21k. 10-Day NESHAP Notification number: ASB0

21l. 10-Day NESHAP Notification submitted by: (provide name of the contractor, individual, etc.)

For Central Office Use Only

Demolition Notification number on file:	Approved by:
Renovation Notification number on file:	Date approved:
Scheduled days of operation:	Date contacted:
Follow up:	Phone approval:
	Date contacted:





**Maricopa County**  
Air Quality Department

Return all applications to: **One Stop Shop**  
501 N. 44<sup>th</sup> Street, Suite 200  
Phoenix, Arizona 85008  
Phone (602) 372-1071 Fax (602) 372-1078

**PART 3**  
**DUST CONTROL PERMIT APPLICATION DUST CONTROL PLAN**

**DUST CONTROL PLAN**

(See Instructions pages 8-13, 19-22)

The following 13 pages will become the dust control plan that will be followed for the project named in this permit. Once fully completed and approved this Dust Control Plan must be posted on-site with the Dust Control Permit and supplied to all contractors and subcontractors.

**Primary (“P”) and Contingency (“C”) Control Measures:**



Every category and/or sub-category requires at least one Primary control measure (“P”) and at least one Contingency control measure (“C”). A contingency control measure is the back-up or secondary action(s) that needs to immediately be implemented when the primary control measure(s) fails to adequately control dust emissions at the named project.

To indicate your choice, mark the box next to the appropriate letter (“P” or “C”) in front of each control measure(s) that you have chosen. Do this for both primary and contingency control measures in every category and/or sub-category.

**Categories and/or sub-categories that are not applicable:**

When a category and/or sub-category does not apply to the named project this must be acknowledged by completely filling out the final entry in the category and/or sub-category. An explanation must be supplied for WHY the category and/or sub-category is not applicable. This is in addition to simply writing “NA” or “not applicable”.

When completing the following Dust Control Plan, use the Instructions on pages 8-13 and 19-22 to help you select dust control measures and keep in mind the following:

- Every category and/or sub-category requires at least one “P” (Primary) and at least one “C” (Contingency).
- Categories and/or sub-categories of dust-generating operations C1, C3, D1, E1, F, and G, in the following Dust Control Plan, have primary control measures, “P”, required by Rule 310. You will need to choose a contingency measure, “C”, for these dust-generating operations if they are applicable to your project.
- Where  has replaced a “P”, the dust control measure **CANNOT** be used as a primary control measure; this measure may only be considered a contingency control measure when selected.
- Where  has replaced a “C”, the dust control measure **CANNOT** be used as a contingency control measure and is required to be used as a primary control measure whenever that category and/or sub-category applies to a project.
- Where “Other” is listed without reference to opacity or surface stabilization standard(s) and is selected as a primary control measure, then the description must meet the criteria in the instructions on page 8 for “Unlisted Dust Control Measures.”
- If a category and/or sub-category does not apply to the project named in this application the last item in that category and/or sub-category must be fully completed. An explanation of why it is not applicable is required.

***After your Dust Control Permit Application has been approved, you must post your Dust Control Permit along with this Dust Control Plan on-site, as required by Rule 310, Section 409.***

**Category A. Vehicles/Motorized Equipment**


(See Instructions page 10)

**A.1 Unpaved Staging Areas, Unpaved Parking Areas, and Unpaved Material Storage Areas**

- ☐ **P** ☐ **C** Apply water (**Fill out Category I, “Water” on pp. 37-41**)
- ☐ **P** ☐ **C** Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving
- ☐ **P** ☐ **C** Apply and maintain gravel, recycled asphalt, or other suitable material
- ☐ **P** ☐ **C** Apply and maintain dust suppressant(s), other than water (**Fill out Category J, “Dust Suppressants other than water” on p. 42**)
- ☐ **P** ☐ **C** Limit vehicle trips to no more than 20 per day per road **AND** limit vehicle speeds to no more than 15 m.p.h. In the space provided; 1) list the maximum number of vehicle trips on the unpaved parking/staging/material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks and water trucks), 2) provide a description of how vehicle speeds will be restricted to no more than 15 m.p.h., and 3) specify which area(s) this will apply to:
- \_\_\_\_\_
- ☐ **P** ☐ **C** Other: \_\_\_\_\_
- \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

**A.2 Unpaved Access Areas/Haul Roads**

- ☐ **P** ☐ **C** Apply water (**Fill out Category I, “Water” on pp. 37-41**)
- ☐ **P** ☐ **C** Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving
- ☐ **P** ☐ **C** Apply and maintain surface gravel, recycled asphalt, or other suitable material
- ☐ **P** ☐ **C** Apply and maintain dust suppressant(s), other than water (**Fill out Category J, “Dust Suppressants other than water” on p. 42**)
- ☐ **P** ☐ **C** Limit vehicle trips to no more than 20 per day per road **AND** limit vehicle speeds to no more than 15 m.p.h. In the space provided; 1) list the maximum number of vehicle trips on the unpaved parking/staging/material storage areas each day (including number of employee vehicles, earthmoving equipment, haul trucks and water trucks), 2) provide a description of how vehicle speeds will be restricted to no more than 15 m.p.h., and 3) specify which road(s) this will apply to:
- \_\_\_\_\_
-  ☐ **C** Cease operations, NOTE: This option CANNOT be considered a *primary* control measure.

- ☐ **P** ☐ **C** Other: \_\_\_\_\_
- \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_



Category B. Disturbed Surface Areas

(See Instructions page 10)

B.1 Before Active Operations occur

- ☐ P ☐ C Pre-water site to the depth of cuts (Fill out Category I, “Water” on pp. 37-41)
- ☐ P ☐ C Phase work to reduce the amount of disturbed surface area at any one time. Attach a map delineating the phases and their extent
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

B.2 During Active Operations

- ☐ P ☐ C Apply water or other suitable dust suppressant(s) other than water (Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)
- ☐ P ☐ C Apply water to maintain a soil moisture content at a minimum of 12% or at least 70% of the optimum soil moisture content for areas that have an optimum moisture content for compaction of less than 12% (Fill out Category I, “Water” on pp. 37-41)
- ☐ P ☐ C In conjunction with one of the above listed measures construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving the site
- ☒ ☐ C Cease operations, NOTE: This option CANNOT be considered a *primary* control measure.
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

B.3 Stabilization for any inactive period, of any length, 24 hours per day, seven days per week including weekends, after work hours, and holidays

- ☐ P ☐ C Apply water (Fill out Category I, “Water” on pp. 37-41)  
Disturbed Surface Areas: Three times per day, increased to a minimum of four times per day if there is evidence of wind-blown dust  
Open Storage Piles (temporarily disturbed): At least twice per hour in a PM<sub>10</sub> nonattainment area, at least once per hour in a PM<sub>10</sub> attainment area
- ☐ P ☐ C Apply and maintain surface gravel or dust suppressant(s) other than water (Fill out Category J, “Dust Suppressants other than water” on p. 42)
- ☐ P ☐ C Cover open storage piles with tarps, plastic or other materials such that wind will not remove the covering(s)
- ☐ P ☐ C Establish vegetative ground cover (landscaping)
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

B.4 Permanent Stabilization of Disturbed Surface Areas required within ten days following the completion of the Dust-Generating Operation if finished for a period of 30 days or longer

- ☐ P ☐ C Pave (Choose one of the following): ☐ Beginning of Project\* ☐ During Project\* ☐ End of Project\*  
\*Must specify additional primary control measure(s) that will be in place prior to paving
- ☐ P ☐ C Apply and maintain gravel, recycled asphalt, or other suitable material
- ☐ P ☐ C Apply and maintain dust suppressant(s) other than water (Fill out Category J, “Dust Suppressants other than water” on p. 42)
- ☐ P ☐ C Establish vegetative ground cover (landscaping)
- ☐ P ☐ C Implement above control measures and restrict vehicle access to the area
- ☐ P ☐ C Apply water (Fill out Category I, “Water” on pp. 37-41) and prevent access/trespass by:  
(Check all of the following that apply)  
☐ ditches ☐ fences ☐ berms ☐ shrubs ☐ trees ☐ other
- ☐ P ☐ C Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions (desert xeriscaping)
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

Category C. Bulk Material Handling

(See Instructions page 11)

C.1 Off-Site Hauling onto Paved Areas Accessible to the Public

☐ P ☒ **Required:** Install, maintain, and use a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site

☐ P ☒ **Required when a cargo compartment is loaded:** cover haul trucks with a tarp or other suitable closure **AND** load all haul trucks such that the freeboard is not less than 3 inches **AND** load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area **AND** prevent spillage or loss of bulk material from holes or other openings in the cargo compartment

☐ P ☒ **Required when a cargo compartment is empty:** cover haul trucks with a tarp or other suitable closure **OR** clean the interior of the cargo compartment before leaving the site

NOTE: The following options CANNOT be considered for a *primary* control measure.

☒ ☐ C Apply water to the top of the load **(Fill out Category I, “Water” on pp. 37-41)**

☒ ☐ C Apply dust suppressant(s) other than water to the top of the load **(Fill out Category J, “Dust Suppressants other than water” on p. 42)**

☒ ☐ C Cease operations

☒ ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

C.2 Hauling/Transporting within the Boundaries of the Work Site but not crossing a Paved Area Accessible to the Public

☐ P ☐ C Limit vehicle speed to 15 m.p.h. or less while traveling on the work site such that visible emissions coming-off the load do not exceed 20% opacity

☐ P ☐ C Apply water to the top of the load **(Fill out Category I, “Water” on pp. 37-41)**

☐ P ☐ C Apply dust suppressant(s) other than water to the top of the load **(Fill out Category J, “Dust Suppressants other than water” on p. 42)**

☐ P ☐ C Cover haul trucks with a tarp or other suitable closure

☒ ☐ C Cease operations, NOTE: This option CANNOT be considered a *primary* control measure.

☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

C.3 Hauling/Transporting within the Boundaries of the Work Site and crossing and/or accessing a Paved Area accessible to the Public

☐ P ☒ **Required:** Load all haul trucks such that the freeboard is not less than 3 inches **AND** load all haul trucks such that at no time shall the highest point of the bulk material be higher than the sides, front, and back of the cargo container area **AND** prevent spillage or loss of bulk material from holes or other openings in the cargo compartment **AND** install suitable trackout control device

NOTE: The following options CANNOT be considered for a *primary* control measure.

☒ ☐ C Cease operations

☒ ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

C.4 Bulk Material Stacking, Loading, and Unloading Operations

☐ P ☐ C Apply water **(Fill out Category I, “Water” on pp. 37-41)**

☐ P ☐ C Apply dust suppressant(s) other than water **(Fill out Category J, “Dust Suppressants other than water” on p. 42)**

NOTE: These following options CANNOT be considered for a *primary* control measure.

☒ ☐ C Cease operations

☒ ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

C.5 Open Storage Piles

☐ P ☐ C **Prior to and/or while conducting** stacking, loading, and unloading operations spray material with water or a dust suppressant other than water **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**

☐ P ☐ C **When not conducting** stacking, loading, and unloading operations cover open storage piles with tarps, plastic, or other material,  
**OR**  
Apply water to maintain soil moisture content at a minimum of 12% or maintain at least 70% of the optimum soil moisture content, for areas that have an optimum moisture content for compaction of less than 12% **(Fill out Category I, “Water” on pp. 37-41),**  
**OR**  
Maintain a soil crust,  
**OR**  
In conjunction with the two measures above, construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the pile length, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%

☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

Category D. Trackout, Carry-out, Spillage, and Erosion

(See Instructions page 11)

D.1 Trackout Control Device

A trackout control device must be installed if a work site has 2 acres or more of disturbed surface area or if a work site has 100 cubic yards of bulk material hauled on-site or off-site per day.

- ☐ P ☒ **Required:** Install at all exits to a paved area accessible to the public at least one of the following:  
(Choose all that apply)  
☐ gravel pad    ☐ grizzly or rumble grate    ☐ wheel wash system    ☐ paved area
- ☒ ☐ C Cease operations, NOTE: This option CANNOT be considered a *primary* control measure.
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

D.2 Cleaning

Trackout/carry-out must be cleaned up immediately if trackout/carry-out extends a cumulative distance of 25 linear feet or more along a paved area accessible to the public including curbs, gutters, and sidewalks.

All other trackout/carry-out must be cleaned up no later than the end of the workday (End of Work Day is the end of a working period that may include one or more work shifts. If working 24 hours a day, the end of a working period shall be considered no later than 8:00 p.m.).

- ☐ P ☐ C Operate a street sweeper or wet broom with sufficient water and at the manufacturer's recommended speed (e.g. kick broom, steel bristle broom, Teflon broom, vacuum)
- ☐ P ☐ C Manually sweep-up deposits
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

Category E. Weed Abatement by Discing or Blading

(See Instructions page 12)

E.1 Disturbance Operations

- ☐ P ☒ **Required:** Pre-water site **AND** apply water during weed abatement by discing or blading (**Fill out Category I, “Water” on pp. 37-41**)

NOTE: The following options CANNOT be considered for a *primary* control measure.

- ☒ ☐ C Cease operations
- ☒ ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

E.2 Stabilization

- ☐ P ☐ C Pave immediately following weed abatement
- ☐ P ☐ C Apply gravel
- ☐ P ☐ C Apply water (**Fill out Category I, “Water” on pp. 37-41**)
- ☐ P ☐ C Apply dust suppressant(s) other than water (**Fill out Category J, “Dust Suppressants other than water” on p. 42**)
- ☐ P ☐ C Establish vegetative ground cover (landscaping)
- ☐ P ☐ C Other: \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

Category F. Blasting Operations

(See Instructions page 12)

- ☐ P ☒ **Required:** Discontinue blasting, if wind gusts above 25 m.p.h., **AND** **Required:** Pre-water **AND** maintain surface soils in a stabilized condition where support equipment and vehicles will operate (**Fill out Category I, “Water” on pp. 37-41**)
- ☐ P ☐ C Apply water (**Fill out Category I, “Water” on pp. 37-41**)
- ☐ P ☐ C Apply and maintain dust suppressant(s) other than water (**Fill out Category J, “Dust Suppressants other than water” on p. 42**)
- ☒ ☐ C Other, NOTE: This option CANNOT be considered a *primary* control measure. \_\_\_\_\_

Or, explain why this category and its control measures are not applicable \_\_\_\_\_

Category G. Demolition Activities

(See Instructions page 12)

P

**Required:** Apply water or water in combination with dust suppressant(s) to demolition debris immediately following demolition activity **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42),**

**AND**

**Required:** Apply water or water in combination with dust suppressant(s) to all surrounding areas and to all disturbed soil surfaces immediately following demolition activity **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**

NOTE: The following options CANNOT be considered for a *primary* control measure.

- C

Thoroughly clean debris from paved and other surfaces following demolition activity
- C

Other: \_\_\_\_\_

Or, explain why this category and its control measures are not applicable \_\_\_\_\_

Category H. Wind Event

(See Instructions page 13)

H.1

During Active Operation

- P

C

Cease dust-generating operation for the duration of the wind event when the 60-minute average wind speed is greater than 25 m.p.h. and stabilize work area if dust-generating operation is ceased for the remainder of the work day
- P

C

Apply water or other suitable dust suppressant at least twice per hour (once per hour if outside the nonattainment area) **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**
- P

C

Apply water to maintain soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Control Officer and the Administrator of the Environmental Protection Agency **(Fill out Category I, “Water” on pp. 37-41)**
- P

C

Maintain at least 70% of the optimum soil moisture content for areas that have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1, or other equivalent method as approved by the Control Officer or the Administrator Of The Environmental Protection Agency **(Fill out Category I, “Water” on pp. 37-41)**
- P

C

Apply water or other suitable dust suppressant(s) at least twice (once if outside the nonattainment area) per hour and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of windblown material leaving the site **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**
- C

Other, NOTE: This option CANNOT be considered a *primary* control measure. \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

H.2

Temporary Disturbed Surface Areas after work hours, weekends, holidays and any other inactive periods 24 hours per day, seven days per week

- P

C

Apply and maintain surface gravel or dust suppressant(s) **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**
- P

C

Apply water or water in combination with dust suppressant(s) to all disturbed surface areas three times per day. If there is evidence of windblown dust, increase watering frequency to a minimum of four times per day. **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**
- P

C

Apply water or water in combination with dust suppressant(s) on open storage piles at least twice per hour (once per hour if outside the nonattainment area) to maintain a visible crust **(Fill out Category I, “Water” on pp. 37-41 or Category J, “Dust Suppressants other than water” on p. 42)**
- P

C

Cover open storage piles with tarps, plastic, or other material such that wind will not remove the coverings
- C

Other, NOTE: This option CANNOT be considered a *primary* control measure. \_\_\_\_\_

Or, explain why this sub-category and its control measures are not applicable \_\_\_\_\_

Category I. Water

(See Instructions page 13)

For each of the different project phases, indicate how the water is to be stored on or supplied to the project site in the “Supply” column, specifying the quantity and size of the supply method (e.g. (2) 3,000 gallon water towers). Also designate how the water will be applied to control dust-generation throughout the project lifetime in the “Application” column, stating the quantity and size of the application method (e.g. 1 fire hose, (3) 1,000 gal. water trucks). Minimum water availability means water supply in conjunction with the water application system.

Soil Rating:

Severe

Moderate

(See Appendix F of the Maricopa County Air Pollution Control Regulations as well as the Instructions, pages 13 and 15-17)

Soil Texture Rating	Project Phase - Site Clearing/Removal of Vegetation/Debris/Demolition	
	Total Acres Disturbed	Minimum Water Available
Severe (clay, silty clay, sandy clay)	0 - 2 acres	500 - 1,000 gallons per day
	2 - 10 acres	1,000 - 5,000 gallons per day
	10 - 100 acres	5,000 - 50,000 gallons per day
	> 100 acres	> 50, 000 gallons per day
Moderate (all other classifications)	0 - 2 acres	300 - 600 gallons per day
	2 - 10 acres	600 - 3,000 gallons per day
	10 - 100 acres	3,000 - 30,000 gallons per day
	> 100 acres	> 30,000 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<div><div></div>Metered Hydrant</div>	_____	<div><div></div>Hose</div>	_____
<div><div></div>Water Tower</div>	_____	<div><div></div>Water Truck</div>	_____
<div><div></div>Water Pond</div>	_____	<div><div></div>Water Pull</div>	_____
<div><div></div>Off-Site</div>	_____	<div><div></div>Water Buffalo</div>	_____
<div><div></div>Other _____</div>	_____	<div><div></div>Other _____</div>	_____

Soil Texture Rating	Project Phase - Mass Grading (Includes basements)	
	Minimum Water Available (November – February)	Minimum Water Available (March – October)
<b>Severe</b> (clay, silty clay, sandy clay)	5,000 gallons per acre per day and	10,000 gallons per acre per day and
	30 gallons per cubic yard of material moved	30 gallons per cubic yard of material moved
<b>Moderate</b> (all other classifications)	5,000 gallons per acre per day and	10,000 gallons per acre per day and
	30 gallons per cubic yard of material moved	30 gallons per cubic yard of material moved

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per acre per day \_\_\_\_\_

Daily Minimum Water Availability \_\_\_\_\_  
(Number of Acres Disturbed) × (Number of Gallons per acre per day)

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Soil Texture Rating	Project Phase - Underground Utilities	
	Total Acres Disturbed	Minimum Water Available
<b>Severe</b> (clay, silty clay, sandy clay)	0 - 2 acres	500 - 1,000 gallons per day
	2 - 10 acres	1,000 - 5,000 gallons per day
	10 - 100 acres	5,000 - 50,000 gallons per day
	> 100 acres	> 50, 000 gallons per day
<b>Moderate</b> (all other classifications)	0 - 2 acres	300 - 600 gallons per day
	2 - 10 acres	600 - 3,000 gallons per day
	10 - 100 acres	3,000 - 30,000 gallons per day
	> 100 acres	> 30,000 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Soil Texture Rating	Project Phase - Unpaved Access Areas/Haul Roads	
	Total Acres Disturbed	Minimum Water Available
<b>Severe</b> (clay, silty clay, sandy clay)	0 - 2 acres	375 - 750 gallons per day
	2 - 10 acres	750 - 3,500 gallons per day
	10 - 100 acres	3,500 - 35,000 gallons per day
	> 100 acres	> 35,000 gallons per day
<b>Moderate</b> (all other classifications)	0 - 2 acres	225 - 400 gallons per day
	2 - 10 acres	400 - 2,250 gallons per day
	10 - 100 acres	2,250 - 22,500 gallons per day
	> 100 acres	> 22,500 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Soil Texture Rating	Project Phase - Vertical/Paved (This pertains to Dust Control during the vertical phase of the project)	
	Total Acres Disturbed	Minimum Water Available
<b>Severe</b> (clay, silty clay, sandy clay)	0 - 2 acres	250 - 500 gallons per day
	2 - 10 acres	500 - 2,500 gallons per day
	10 - 100 acres	2,500 - 25,000 gallons per day
	> 100 acres	> 25,000 gallons per day
<b>Moderate</b> (all other classifications)	0 - 2 acres	150 - 300 gallons per day
	2 - 10 acres	300 - 1,500 gallons per day
	10 - 100 acres	1,500 - 15,000 gallons per day
	> 100 acres	> 15,000 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Soil Texture Rating	Project Phase - Staging/Parking Areas/Storage Areas Including Landscaping Installation	
	Total Acres Disturbed	Minimum Water Available
Severe (clay, silty clay, sandy clay)	0 - 2 acres	375 - 750 gallons per day
	2 - 10 acres	750 - 3,500 gallons per day
	10 - 100 acres	3,500 - 35,000 gallons per day
	> 100 acres	> 35,000 gallons per day
Moderate (all other classifications)	0 - 2 acres	225 - 400 gallons per day
	2 - 10 acres	400 - 2,250 gallons per day
	10 - 100 acres	2,250 - 22,500 gallons per day
	> 100 acres	> 22,500 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Soil Texture Rating	Project Phase - Structure Excavation (Includes stem walls, footings, culverts, abutments, caissons)	
	Total Acres Disturbed	Minimum Water Available
Severe (clay, silty clay, sandy clay)	0 - 2 acres	500 - 1,000 gallons per day
	2 - 10 acres	1,000 - 5,000 gallons per day
	10 - 100 acres	5,000 - 50,000 gallons per day
	> 100 acres	> 50, 000 gallons per day
Moderate (all other classifications)	0 - 2 acres	300 - 600 gallons per day
	2 - 10 acres	600 - 3,000 gallons per day
	10 - 100 acres	3,000 - 30,000 gallons per day
	> 100 acres	> 30,000 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Soil Texture Rating	Project Phase - Fine Grading	
	Total Acres Disturbed	Minimum Water Available
Severe (clay, silty clay, sandy clay)	0 - 2 acres	500 - 1,000 gallons per day
	2 - 10 acres	1,000 - 5,000 gallons per day
	10 - 100 acres	5,000 - 50,000 gallons per day
	> 100 acres	> 50, 000 gallons per day
Moderate (all other classifications)	0 - 2 acres	300 - 600 gallons per day
	2 - 10 acres	600 - 3,000 gallons per day
	10 - 100 acres	3,000 - 30,000 gallons per day
	> 100 acres	> 30,000 gallons per day

Average Daily Disturbance in Acres \_\_\_\_\_ Number of Gallons per day \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____

Import/Export Operations

Number of Yards Involved in this Phase \_\_\_\_\_ Number of Days for Operation \_\_\_\_\_

Number of Yards Imported/Exported × 30 gallons of water per yard = \_\_\_\_\_ (Total Gallons required)

Total Gallons required divided by number of days = \_\_\_\_\_

Supply	Quantity and Size	Application	Quantity and Size
<input type="checkbox"/> Metered Hydrant	_____	<input type="checkbox"/> Hose	_____
<input type="checkbox"/> Water Tower	_____	<input type="checkbox"/> Water Truck	_____
<input type="checkbox"/> Water Pond	_____	<input type="checkbox"/> Water Pull	_____
<input type="checkbox"/> Off-Site	_____	<input type="checkbox"/> Water Buffalo	_____
<input type="checkbox"/> Other _____	_____	<input type="checkbox"/> Other _____	_____



Category J. Dust Suppressants other than water

(See Instructions page 13)

Although water is a dust suppressant, the information required by Table J should not include information on water supply and water application. The information required by Table J is for all other dust suppressants that you use. Fill out the applicable areas in the table below and attach information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application. Also, attach product specification(s) and application sheet(s) or label instructions.

Application Area	Manufacturer Name	Product	Application Frequency *	Intensity**
A Vehicles/Motorized Equipment				
B Disturbed Surface Areas				
C Bulk Material Handling				
D Trackout, Carry-out, Spillage, and Erosion				
E Weed Abatement by Discing or Blading				
F Blasting Operations				
G Demolition Activities				
H Wind Event				

\* How often the surface will receive a complete application of dust suppressant (e.g. 3 times a day)

\*\* The amount used over a period of time (e.g. gallons/minute)

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APPENDIX 4-5

MEMORANDUM OF AGREEMENT

Appendix 4-5, *Memorandum of Agreement*, contains the Memorandum of Agreement committing FHWA, USACE, and ADOT to integrating NEPA and Section 404 of the Clean Water Act into the transportation planning, decision-making, and implementation process of the project. The completion of this memorandum of agreement is required as a component of a coordinated environmental review process to improve inter-agency communications, protect Waters and wetlands, expedite construction of necessary projects, and enable more projects to proceed on budget and schedule.

JPA/IGA 10-067I  
AG Contract NO: P00120103933  
ADOT Project No: M5106 01X  
& M5106 02X

AMENDED AND SUPERSEDED  
MEMORANDUM OF AGREEMENT  
BETWEEN THE  
ARIZONA DEPARTMENT OF TRANSPORTATION,  
FEDERAL HIGHWAY ADMINISTRATION, ARIZONA DIVISION OFFICE  
AND  
THE UNITED STATES ARMY CORPS OF ENGINEERS'  
LOS ANGELES DISTRICT  
CONCERNING FUNDING FOR THE DEPARTMENT OF THE ARMY PERMIT PROCESS ON  
PRIORITY FEDERAL-AID HIGHWAY PROJECTS

THIS AMENDED AND SUPERSEDED MEMORANDUM OF AGREEMENT ("AMENDED MOA") is entered into as of this day 18 of MARCH, 2013, between the U.S. Army Corps of Engineers' Los Angeles District (hereinafter the "Corps"), Federal Highway Administration, Arizona Division Office (hereinafter the "FHWA"), and the Arizona Department of Transportation (hereinafter the "ADOT"), collectively, referred to herein as the "Parties."

RECITALS

WHEREAS, the Parties entered into a Memorandum of Agreement ("Original MOA") effective June 18, 2012 concerning funding for the Department of the Army permit process on priority Federal-aid highway projects; and

WHEREAS, the Parties wish to amend and supersede the Original MOA in its entirety; and

WHEREAS, the Corps has regulatory jurisdiction over certain activities occurring in waters of the United States, including wetlands; and

WHEREAS, because of Federal-aid transportation funding increases under the Moving Ahead for Progress in the 21<sup>st</sup> Century ("MAP-21"), Public Law 112-141, ADOT substantially increased the number of transportation projects the Corps must review pursuant to 33 U.S.C. 1344 (Section 404 of the Clean Water Act of 1972 ("CWA")), as amended and 33 U.S.C. 403 (Section 10 of the River and Harbor Act of 1899 ("RHA")); and

WHEREAS, the Corps has indicated that, due to staff resource constraints, it is currently unable to provide ADOT with priority review for permitting decisions for the increased number of Federal-aid transportation projects pursuant to its responsibilities; and

WHEREAS, ADOT desires the Corps to increase its level of early involvement during the project planning and development process, so that final Corps reviews will not constitute an unexpected delay in ADOT project implementation; and



WHEREAS, 23 U.S.C. 139(j) [Section 6002 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)], allows ADOT to furnish Federal-Aid Highway Program (“FAHP”) funds to the Corps to expedite the processing of environmental documents for permit decisions for priority transportation projects, and

WHEREAS, this AMENDED MOA is intended to (1) enable the Parties to fully consider, address, and protect environmental resources early in the development of proposed transportation actions; (2) avoid conflicts late in project development through close coordination during early transportation planning and development stages; (3) provide sufficient information to the Corps for timely analysis of project effects and to assist ADOT in developing appropriate mitigation measures; (4) maximize the effective use of limited Corps personnel resources by focusing attention on projects that would most affect aquatic resources; (5) provide a mechanism for expediting project coordination when necessary; and (6) provide procedures for resolving disputes in this resource partnering effort, and

WHEREAS, the FHWA has indicated and agrees that the State’s apportioned Federal-aid highway funds can be used to support this AMENDED MOA.

NOW, THEREFORE, the Parties agree as follows:

AGREEMENT

Article I. PURPOSE AND AUTHORITIES

A. This AMENDED MOA is entered into by the Parties for the purpose of establishing the responsibilities of the Parties relative to priority review of FAHP-funded projects with the goal of achieving timely design and implementation of highway improvements while also assuring such design and implementation is sensitive to the protection of aquatic resources for which the Corps is responsible under Federal statute and regulation. This AMENDED MOA is not intended as the exclusive means of obtaining review of projects proposed by ADOT. This AMENDED MOA is a vehicle by which ADOT may obtain expedited review of FAHP-funded projects designated as priorities, outside of the ordinary Corps review process.

B. ADOT enters into this AMENDED MOA pursuant to Arizona Revised Statute section 28-401 and other relevant Arizona law and 23 U.S.C. 139(j) (Section 6002 of SAFETEA-LU).

C. The Corps enters into this AMENDED MOA pursuant to 23 U.S.C. 139(j) (Section 6002 of SAFETEA-LU).

D. FHWA enters into this AMENDED MOA pursuant to 23 U.S.C. 139(j) (Section 6002 of SAFETEA-LU).

Article II. SCOPE OF WORK

A. Activities that the Corps may pursue under this AMENDED MOA are restricted to actions taken under Corps regulatory authority that will expedite processing of environmental permits required by ADOT in furtherance of FAHP funded projects in accordance with the mandates of 23 U.S.C. 139(j), to facilitate permit application review in less than the customary time necessary for such review. Said processing shall include a full consideration of all relevant and applicable environmental laws and regulations. In no way shall it be construed or implied that the Parties intend to abrogate by entering into this AMENDED MOA any obligations or duties to comply with applicable Federal or state

laws, regulations, guidance, policies and procedures. Use of such funds will not affect the impartial decision-making of the Corps either substantively or procedurally.

B. The Corps’ Regulatory Program is funded as a Congressionally appropriated line item in the annual Federal budget. ADOT will provide the Corps with funds in accordance with 23 U.S.C. 139(j). The Corps will provide one full-time Regulatory Program Manager qualified at grade GS-11 as described in **Attachment C**, exclusively dedicated to expediting permit evaluation-related services, as described in Article II.D, below, for ADOT-designated priority projects to support efficient decision-making related to ADOT’s permitting needs.

C. The Corps will establish a separate internal financial account to track receipt and expenditure of the funds associated with its review of permit applications submitted by ADOT. The Corps full-time Regulatory Program Manager will charge his or her time and expenses against the account when they perform work to either expedite permit evaluation related requests designated by ADOT as a priority or undertake other programmatic efforts to support efficient decision-making related to ADOT’s permitting needs. Corps Regulatory personnel will focus on permit approvals prioritized by ADOT; however, if no or less than three projects are designated by ADOT as a priority, Corps regulatory personnel will then work on other programmatic efforts, and assist with staff training for ADOT.

D. Funds contributed by ADOT hereunder will be expended by the Corps to defray the costs of the funded Regulatory Program Manager (including salary, associated benefits, overhead and travel expenses) and other costs in order to expedite the evaluation of priority permit applications designated by ADOT. Such activities will include, but not be limited to, the following: jurisdictional determinations; site visits; travel; federal register preparation; public notice preparation and distribution; public hearings; preparation of correspondence; public interest review; preparation and review of environmental documentation; meetings with ADOT and resource agencies; training for ADOT employees, partners and contractors; and any other permit evaluation related responsibilities that may be mutually agreed upon.

E. If the funds provided by ADOT are expended and not replenished, any remaining priority permit applications will be handled like those of any permit applicant.

Article III. INTERAGENCY COMMUNICATIONS

To provide for consistent and effective communication between the Parties, each party will appoint a Principal Representative to serve as its central point of contact on matters relating to this AMENDED MOA. Additional representatives may also be appointed to serve as points of contact on specific actions or issues. Each party will issue a letter to the other designating the Principal Representative for each party within fifteen (15) calendar days of AMENDED MOA execution. The Principal Representative for each party may be changed upon written notification to the other parties.

Article IV. RESPONSIBILITIES OF THE PARTIES

A. The Corps shall supplement, and not supplant, its existing Regulatory Program personnel, who currently review ADOT projects on a routine basis, with one qualified full-time Regulatory Program Manager at grade GS-11 as described in **Attachment C**, within projected funding levels provided by ADOT. The Corps shall use the funds provided to defray the costs of salaries and associated benefits and to reimburse travel expenses in order to:

1. Expedite review of ADOT’s FAHP-funded priority projects in accordance with the purpose, terms, and conditions of this AMENDED MOA. ADOT will provide and update the list of



priority projects as needed. The Corps shall not redirect resources from, or otherwise postpone, other non-priority projects submitted by ADOT through the standard Corps review process.

2. Actively participate in ADOT scoping, planning, and project development meetings and field reviews, when requested, to identify critical issues, key decision points, and potential conflicts as early as possible. Participation includes sharing, when appropriate, the most current information to ensure that good transportation decisions result. The level of participation will be determined by the project's relative priority, as identified by ADOT, as well as the Corps' current and projected workload of priority projects and activities.
  3. Participate with other federal, state, and local agencies in the concurrent and proactive review of transportation projects and provide any concurrences or recommendations, as required. The level of participation will be determined by the project's relative priority, as identified by ADOT, as well as the Corps' current and projected workload of priority projects and activities.
  4. Participate in transportation planning meetings, their related activities, and the review of the environmental elements of any planning documents, as requested. The level of participation will be determined by the project's relative priority, as identified by ADOT, as well as the Corps' current and projected workload of priority projects and activities.
  5. As appropriate, use a coordinated process to review draft and final environmental impact statements and other environmental documents, and provide timely agency comments.
  6. Explore potential programmatic permitting approaches to facilitate reduced processing time.
  7. Provide quarterly status updates on Corps decisions or pending actions that will affect ADOT.
  8. Perform other related priority tasks, such as early project scoping/coordination as requested by ADOT and agreed to by the Corps.
  9. Review application packages for completeness and notify ADOT within 15 calendar days of receipt if application is incomplete.
  10. Provide periodic CWA section 404 permit training for ADOT employees, partners, consultants, and contractors.
  11. Attend periodic application status meetings with ADOT as necessary.
  12. Provide ADOT with quarterly accounting records of actual account of expenditures for salaries, benefits, travel and indirect costs as drawn against advance state payment in support of work contemplated by this AMENDED MOA.
- B. ADOT will provide \$169,313.65 to fund Corps Regulatory personnel for the purpose of timely review of selected FAHP-funded priority projects and other identified activities. To facilitate the Corps' reviews and activities, ADOT will:
1. Identify individual projects and other activities requiring priority involvement by the Corps under this AMENDED MOA. The list of projects will be reviewed and revised by ADOT as

necessary.

2. Actively engage the Corps personnel in ADOT scoping, planning, and project development through various means, including, but not limited to, meetings, field visits, conference calls, video teleconferencing, and electronic correspondence.
3. Provide adequate information regarding projects and other specific activities. Provide sufficient information and time to the Corps, on projects requiring authorization by standard individual permit, for the timely determination of project purpose statements and range of alternatives, analysis of project effects, determination of the least environmentally damaging practicable alternative, and development of appropriate mitigation measures. Upon request, provide supplemental information necessary to assure that the Corps can effectively accomplish the tasks listed in Article IV. A. above.
4. In consultation with the Corps, recommend realistic timelines for the Corps' involvement.
5. Maintain a single focal point of contact at ADOT for general coordination with the Corps, arranging pre-application meetings, submittal of Department of the Army permit applications, and other requests for regulatory action.
6. Attend periodic application status meetings with the Corps, as necessary.
7. Participate, to the extent allowable, and in training provided by the Corps pursuant to Article IV.A.10 above.
8. Program a FAHP project to track costs contemplated by this AMENDED MOA.
9. Provide advance payments as contemplated by this AMENDED MOA.

C. FHWA will:

1. Approve programming a FAHP project to accomplish the work contemplated by this AMENDED MOA at the applicable federal-aid reimbursement rate.
2. Within 3 days after receiving an invoice from ADOT, reimburse ADOT for the total amount of Federal share payable for any project programmed (including advance payments) to support this AMENDED MOA.
3. In the event FHWA fails to fulfill the obligations set forth in this AMENDED MOA or withdraw its proposed plans for whatever reason, the FHWA shall, subject to the availability of funds, be responsible for all costs incurred by the ADOT up to the time of withdrawal, unless the reason for the FHWA failure or cancellation is due to ADOT's failure to comply with its obligations hereunder.

D. Performance Measures

1. ADOT and the Corps have agreed to a set of performance measures to monitor activities under this AMENDED MOA. These performance measures are included as **Attachment A** to this AMENDED MOA and incorporated herein by reference.



2. These performance measures may be revised by mutual agreement of ADOT and the Corps without necessitating a formal amendment to this AMENDED MOA.

Article V. FUNDING

A. Within 60 days of execution of this AMENDED MOA and prior to the Corps incurring any expenditure to expedite permit evaluation-related activities as specified in this AMENDED MOA, funds shall be provided by ADOT to the Corps in the amount of \$ 42,328.41 to cover a period of three months of the Corps' budget estimate, which is included as **Attachment B** to this AMENDED MOA and incorporated herein by reference. Payments by ADOT are to be made by check, wire transfer, or electronic funds transfer as follows:

1. For checks, the payment shall be mailed to:

U.S. Army Corps of Engineers, Los Angeles District  
Finance and Accounting Officer  
P.O. Box 532711  
Los Angeles, CA 90053-2325  
Attn: Carlos M. Tabares

2. For electronic funds transfers, payment shall be made in accordance with Standard Operating Procedure ("SOP") UFC 08 (**Attachment D**).

3. For wire transfers, payment shall be made in accordance with SOP UFC 07 (**Attachment E**). Paragraph 4a of this SOP refers to this AMENDED MOA instead of a Project Cooperation Agreement.

B. At the end of the calendar month in which the Corps received the advance payment specified in Article V.A. above and at the end of the calendar month of each month thereafter while this AMENDED MOA remains in effect, the Corps will invoice ADOT for an advance payment for the next month in the amount equal to what the Corps expended during the prior calendar month. Payment shall be made within a reasonable period of time after ADOT receives the invoice (not to exceed 30 calendar days) in the same manner as provided in Article V.A. above. Invoices shall be submitted by the Corps to:

Mr. Paul O'Brien  
Arizona Department of Transportation  
Manager, Environmental Planning Group  
1611 W Jackson Street; Mail Drop EM02  
Phoenix, AZ 85007

C. If the Corps' actual costs for providing the agreed upon level of service will exceed the amount of funds available, the Corps will notify ADOT prior to fund exhaustion of the incremental amount of funds needed to defray the remaining anticipated costs.

D. No later than July 31, 2013, and July 31 of each subsequent year that this AMENDED MOA remains in effect, the Corps and ADOT will discuss the Corps' anticipated costs to be incurred for the next Federal fiscal year, including any step-increase and locality adjustments. Revisions agreed to by ADOT and the Corps will be incorporated into a revised budget estimate, without necessitating a formal revision or amendment to this MOA. No later than August 30, 2013 and August 30 of each subsequent year that this AMENDED MOA remains in effect, the Corps will provide a written request to ADOT for the total amount specified in the revised budget estimate.

E. The Corps will carry over any unexpended and unobligated funds from year to year. In

the event any funds remain unexpended and unobligated when this AMENDED MOA is terminated or expires, the Corps will refund such unexpended and unobligated funds to ADOT.

Article VI. APPLICABLE LAWS

The applicable statutes, regulations, directives, and procedures of the United States will govern this AMENDED MOA and all documents and actions pursuant to it. Unless otherwise required by law, all expediting of permit applications undertaken by the Corps will be governed by Corps regulations, guidance, policies and procedures.

Article VII. DISPUTE RESOLUTION

In the event of a dispute, the Parties agree to use their best efforts to resolve the dispute in an informal fashion through consultation and communication, or other forms of non-binding alternative disputes resolution mutually acceptable to the Parties. The Parties agree that, in the event such measures fail to resolve the dispute, they shall proceed in accordance with applicable Federal law.

Article VIII. PUBLIC INFORMATION

Justification and explanation of FHWA and/or ADOT programs or projects before other agencies, departments and offices will not be the responsibility of the Corps. The Corps may provide, upon request from ADOT or the FHWA, any assistance necessary to support justification or explanations of activities conducted under this AMENDED MOA. In general, the Corps is responsible only for public information regarding Corps Regulatory activities. ADOT and/or FHWA will give the Corps advance notice before making formal, official statements regarding Corps activities funded under this AMENDED MOA.

Article IX. AMENDMENT, MODIFICATION AND TERMINATION

A. This AMENDED MOA may be modified or amended only by written, mutual agreement of the Parties.

B. Any Party may terminate this AMENDED MOA without cause upon thirty (30) days' written notice to the other Parties. In the event of termination, ADOT will continue to be responsible for all costs incurred by the Corps in performing expedited environmental permit review services up to the time of notice and for the costs of closing out any ongoing contracts in support of the provision of services by the Corps under this AMENDED MOA.

C. Within sixty (60) calendar days of termination, or the expiration of the AMENDED MOA, the Corps shall provide ADOT with a final statement of expenditures. Within sixty (60) calendar days after submittal of the Corps' final statement of expenditures, the Corps, subject to availability of funds, shall remit to ADOT any unobligated or unexpended funds.

Article X. MISCELLANEOUS

A. This AMENDED MOA will not affect any pre-existing or independent relationships or obligations between the Parties.

B. The Corps' participation in this AMENDED MOA does not imply endorsement of ADOT projects nor does it diminish, modify, or otherwise affect Corps statutory or regulatory authorities.

C. If any provision of this AMENDED MOA is determined to be invalid or unenforceable, the remaining provisions will remain in force and unaffected to the fullest extent permitted by law and regulation.


D. This AMENDED MOA, including any documents incorporated by reference or attachments thereto, constitute the entire agreement between the Parties. All prior or contemporaneous agreements, understandings, representations and statements, oral or written, are merged herein and shall be of no further force or effect.

Article XI. EFFECTIVE DATE AND DURATION

This AMENDED MOA and any amendments will become effective on the date of signature by the last Party, and the signing and dating of the Determination Letter by the Arizona State’s Attorney General. ADOT shall provide written notice to the Corps and FHWA of the occurrence of the latter event. Unless amended or modified pursuant to Article IX.A., this AMENDED MOA shall remain in force until whichever of these events occurs first: 1) September 30, 2017; or 2) the AMENDED MOA is terminated pursuant to Article IX.B.

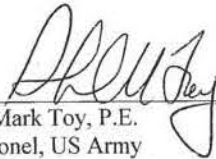
IN WITNESS WHEREOF, the Arizona Department of Transportation, acting by and through its authorized officer, the State Engineer, the U.S Army Corps of Engineers, acting by and through its authorized officer, the District Engineer, and the Federal Highway Administration, acting by and through its authorized officer, the Division Administrator, executes this AMENDED MOA.

ARIZONA DEPARTMENT OF TRANSPORTATION

  
Dallas Hammit, P.E.  
Deputy State Engineer, Development


Date: 2/21/2013

U.S. ARMY CORPS OF ENGINEERS,  
LOS ANGELES DISTRICT

  
R. Mark Toy, P.E.  
Colonel, US Army  
Commander and District Engineer

Date: 18 MAR 2013

FEDERAL HIGHWAY ADMINISTRATION,  
ARIZONA DIVISION OFFICE

  
Karla S. Petty  
Division Administrator

Date: 3/4/2013



Attachment A

Performance Measures

For the measures listed below, ADOT and the Corps are expected to achieve the identified objective, for those projects designated as a priority by ADOT, unless ADOT and Corps have mutually agreed to extend the timeframe.

Performance Objective	Performance Measure
<ul style="list-style-type: none"><li>When appropriate, the ADOT staff will utilize the Nationwide Permit (NWP) Information Form to ensure a complete Department of the Army permit application is received, which in turn is expected to expedite the Corps' permit review process.</li></ul>	The NWP Information Form shall be utilized at least 90% of the time.
<ul style="list-style-type: none"><li>Upon initial receipt of a permit application, the Corps will notify ADOT within fifteen (15) calendar days if additional information is necessary to deem the application complete.</li></ul>	The Corps shall provide such notification within the stated time frame at least 85% of the time.
<ul style="list-style-type: none"><li>Standard Individual Permits will be processed within sixty (60) days of a complete application, with the exception of those that are delayed due to: absence of CWA Section 401 certification; Section 7 of the Endangered Species Act (ESA) consultation(s); Section 106 of the National Historic Preservation Act (NHPA) consultations; untimely submittal of information or comments from ADOT; an extended comment period for the PN; and/or other environmental review processes with statutory time frames (e.g., Environmental Impact Statement).</li></ul>	The Corps shall meet the stated objective at least 90% of the time.
<ul style="list-style-type: none"><li>General Permits, including Nationwide Permits, will be processed within 45 calendar days, with the exception of those that are delayed due to the absence of CWA Section 401 certification, Section 106 of the NHPA and/or Section 7 of the ESA.</li></ul>	The Corps shall meet the stated objective at least 90% of the time.

Attachment B

Corps' Budget Estimate  
GS-11 Project Manager in Phoenix,  
Arizona

	Yearly	Monthly
Salary	\$162,313.65	\$13,526.14
Travel	\$1,000.00	\$83.33
Administrative costs	\$6,000.00	\$500.00
Total:	\$169,313.65	\$14,109.47

Three month  
estimate: \$42,328.41



Attachment C

Professional Standards for Supplemental Staff

One (1) full time employee, or equivalent, with experience and/or education in engineering, biology, natural resources, or other related environmental science. Working knowledge of Section 404 of the (Federal) Clean Water Act, Section 10 of the Rivers and Harbors Act or 1899, the National Environmental Policy Act, the (Federal) Endangered Species Act, and the National Historic Preservation Act is essential. In addition, the ability to travel, occasionally overnight, is mandatory (temporary duty may constitute 10-20% of the employee's time). This employee will be qualified to be paid under the Federal White Collar Pay Schedule at the GS-11 or GS-12 level.

Attachment D

DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
FINANCE CENTER  
5722 INTEGRITY DRIVE  
MILLINGTON TENNESSEE 38054-5005

CEFC-FD  
SOP No. UFC-08

1 June 2004  
Revised 1 April 2006

STANDING OPERATING PROCEDURES  
ELECTRONIC FUNDS TRANSFERS TO THE CORPS

1. **PURPOSE.** To Standing Operating Procedure (SOP) provides procedures for utilizing Electronic Funds Transfer (EFT) and the Automated Clearing House (ACH) networks in lieu of mailing a check for payment to the Corps.
2. **APPLICABILITY.** The provisions of this SOP apply to the USACE Finance Center (UFC) and activities supported by the UFC.
3. **REFERENCE.** SOP No. UFC-03, Collection/Deposit Procedures.
4. **PROCEDURES.** When a Corps customers wishes to use EFT or ACH processes to transfer of cash contributions in lieu of mailing a check to the UFC, the enclosed procedures must be followed to ensure accurate and timely credit for the funds transferred.
  - a. The customer must notify the supported activity F&A Officer or Project Manager in advance of the pending cash transfer. **The customer's notification should include the date of the transfer, amount, type of transfer (CCD+ or CTX format), and any other known data that will be used to identify the transfer.** The customer's financial institution will transfer the funds via the ACH network using the Cash Concentration or Disbursement Plus (CCD+) or Corporate Trade Exchange (CTX) formats of transactions. The required data elements for these types of transactions are provided in the enclosures.
  - b. Upon notification from the customer or the Project Manager of the pending EFT, the supported activity F&A Officer must enter a Collection Receiving Officer Voucher (ROV) in CEFMS. All EFT collection vouchers must be submitted to the UFC Disbursing Division using Form UFC-DISB-1 (available at: <http://fc.ufc.usace.army.mil/forms/a-ufcdsb1.pdf>). There should only be one EFT transaction per ROV and no other transactions should be attached to an ROV established for EFT purposes.

CEFC-FD  
SOP No. UFC-08

1 June 2004  
Revised 1 April 2006

c. In addition to the enclosed format instructions, the F&A Officer or the Project manager must also provide the following information to the customer for the EFT transfer:

- (1) The District/Division/Laboratory/RBC two-digit EROC
- (2) The CEFMS ROV number
- (3) The Advance Account or Local Cost Share Number


5. **Ca\$hLink II Agency Access System.** Ca\$hLink II is an on-line U.S. Treasury system that allows the UFC to access and confirm our deposit information the next working day after the EFT is posted. The UFC monitors the Ca\$hLink II system daily. Upon verification of the EFT transfer in Ca\$hLink II, the UFC will certify the ROV and confirm the deposit. Funds will be available immediately after the deposit confirmation.

The UFC will not require any additional documentation from the supported activity or the customer provided all required documentation identified above is provided. **If an EFT transaction is received via Ca\$hLink II that cannot be identified, it will be rejected back to the sender.** Before rejecting an EFT, the UFC will research and try to determine the proper supported activity and CEFMS account to update. For those EFT transactions rejected by the UFC, the financial institution (bank) that initiated the EFT will notify the customer (sender) of the rejected transaction.

6. **CHANGES.** Refer all discrepancies, comments or questions regarding this SOP to the Chief, Disbursing Division, Directorate of Finance (CEFC-FD) 901-874-8648.

FOR THE DIRECTOR:

Encls

  
SHIRLEY L. AUTRY  
Deputy Director, Finance

UFC-08

Revised 1 April 2006

U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER  
Electronic Funds Transfer  
Customer Implementation Data Sheet

ACH CCD+ Format

DATA Element Name	Contents	Size	Position
*Record Type Code	6	1	01-01
*Transaction Code	22	2	02-03
*Receiving ABA	05103670	8	04-11
*Check Digit	6	1	12-12
*Account Number	220025	17	13-29
Payment Amount	Amount of Payment (\$\$\$\$cc)	10	30-39
Identification Number	Optional	15	40-54
*Receiver Name	USACE Finance Center	22	55-76
**Discretionary Data	EROC Code of Corp Office	2	77-78
Addenda Indicator	1 (addenda present)	1	79-79
Trace Number	Assigned by Remitter's Bank	15	80-94

ADDENDA RECORD FORMAT

DATA Element Name	Contents	Size	Position
*Record type Code	7	1	01-01
*Addenda Type Code	05	2	02-03
***Payment Related Data	ROV #/Account #;EROC	80	04-83
Sequence Number	Addenda number starting at 0001	4	84-87
Addenda Trace Number	Same as the last 7 numbers of the detail trace number	7	88-94

\*Data remains same for every transaction  
\*\*EROC Code of Corps District  
\*\*\*Data supplied by Corps District to Customer - If data is not present, transaction will be rejected

UFC-08

Revised 1 April 2006

U.S. ARMY CORPS OF ENGINEERS FINANCE CENTER  
Electronic Funds Transfer  
Customer Implementation Data Sheet

ACH CTX Format

DATA Element Name	Contents	Size	Position
*Record Type Code	6	1	01-01
*Transaction Code	22	2	02-03
*Receiving ABA	05103670	8	04-11
*Check Digit	6	1	12-12
*Account Number	220025	17	13-29
Payment Amount	Amount of Payment (\$\$\$\$cc)	10	30-39
Identification Number	Optional	15	40-54
Number of Addenda	Number of Addenda Records attached	4	55-58
*Receiver Name	USACE Finance Center	22	59-74
Reserved	Blank	2	75-76
**Discretionary Data	EROC Code of Corp Office	2	77-78
Addenda Indicator	1 (addenda present)	1	79-79
Trace Number	Assigned by Remitter's Bank	15	80-94

ADDENDA RECORD FORMAT

DATA Element Name	Contents	Size	Position
*Record Type Code	7	1	01-01
*Addenda Type Code	05	2	02-03
***Payment Related Data	ROV #/Account #; EROC	80	04-83
Sequence Number	Addenda number starting at 0001	4	84-87
Addenda Trace Number	Same as the last 7 numbers of the detail trace number	7	88-94

\*Data remains same for every transaction  
\*\*EROC Code of Corps District  
\*\*\*Data supplied by Corps District to Customer - If data is not present, transaction will be rejected



Attachment E

DEPARTMENT OF THE ARMY  
US ARMY CORPS OF ENGINEERS  
FINANCE CENTER  
5722 INTEGRITY DRIVE  
MILLINGTON TENNESSEE 38054-5005

CEFC-FD  
SOP No. UFC-07

1 June 2004  
Revised: 1 April 2006

STANDING OPERATING PROCEDURE  
WIRE TRANSFER OF FUNDS

1. **PURPOSE.** This Standing Operating Procedure (SOP) provides procedures to follow in order to deposit funds into an advance account or a cost sharing account through use of Wire Transfer.
2. **APPLICABILITY.** This SOP applies the USACE Finance Center (UFC) and activities supported by the UFC.
3. **REFERENCE.** SOP No. UFC-03, Collection/Deposit Procedures.
4. **PROCEDURES.** When a customer wishes to use wire transfer procedures to transfer funds to the Corps, the enclosed wire transfer procedures must be followed to ensure accurate and timely credit for funds transferred.
  - a. The customer must notify the supporting F&A Officer in advance of a transfer providing the date of the transfer, amount and the applicable Project Cooperation Agreement (PCA) number or advance account number the funds are intended for. The sponsor must wire the funds through the Federal Reserve Bank of New York using a Type 1000, Structured Third Party Funds Transfer Message to transfer the funds to the UFC. The data needed by the customer's sponsor bank is provided as enclosure 1.
  - b. When notification from the customer is received by the F&A Officer, a Collection Receiving Office Voucher (ROV) must be created in CEFMS. All wire transfer collection vouchers must be submitted to the UFC Disbursing Division using the UFC-DISB-6 Form (enclosure 2). The supported F&A Officer must ensure that all information on the form is provided and forwarded to the UFC arriving in advance of the transfer. There should only be one wire transfer for each ROV.
5. **Ca\$hLink II Agency Access System.** Ca\$hLink II is an on-line U.S. Treasury system that allows the UFC to access and confirm our deposit information the next working day after the wire transfer is posted. The UFC monitors the Ca\$hLink II system daily. Upon verification of the wire transfer in Ca\$hLink II, the UFC will certify the ROV and confirm the deposit. Funds will be available immediately after the deposit confirmation.

CEFC-FD  
SOP No. UFC-07

1 June 2004  
Revised 1 April 2006

The UFC will not require any additional documentation from the supported activity or the customer provided all required documentation identified above is provided. **If a wire transfer is received via Ca\$hLink II that cannot be identified, it will be rejected back to the sender.** Before rejecting a wire transfer, the UFC will research and try to determine the proper supported activity and CEFMS account to update. For those wire transfers rejected by the UFC, the financial institution (bank) that initiated the transfer will notify the customer (sender) of the rejected transaction.

6. **CHANGES.** Refer all discrepancies, comments or questions regarding this SOP to the Chief, Disbursing Division, Directorate of Finance (CEFC-FD) 901-874-8648.

FOR THE DIRECTOR:



SHIRLEY L. AUTRY  
Deputy Director, Finance

Encls

**TYPE 1000, STRUCTURED THIRD PARTY FUNDS TRANSFER MESSAGE**  
(Information Provided by Customer when Making Transfer)

KEY FIELDS - 1000 FUNDS TRANSFER

FIELD NAME	LENGTH	VALUE
Receiver-dfi#	9	021030004 (Standard)
Type-subtype-code	4	1000
Sender-dfi #	9	Sender ABA-number (Bank Routing No.)
Sender-ref-#	16	Filled by sender (Use PCA No.)
Amount	18	Use dollar sign, commas, and decimal point
Sender-dfi-info	80	Filled by sender
Receiver-dfi-info	80	TREAS NYC/CTR/BNF=/AC-00008736

NOTE: THE RECEIVER-DFI-INFO FIELD IS OF CRITICAL IMPORTANCE. IT MUST APPEAR IN THE PRECISE MANNER SHOWN TO ALLOW FOR THE AUTOMATED PROCESSING AND CLASSIFICATION OF THE FUNDS TRANSFER MESSAGE.

Free-text-line-1	80	Filled in by sender
Free-text-line-I	80	Filled in by sender
Free-text-line-l	80	Filled in by sender



**WIRE TRANSFER ONLY**

**RECEIVING VOUCHER ROUTING SLIP**

Date Receiving Voucher Entered Into CEFMS: \_\_\_\_\_

Authorized Collector's Name: \_\_\_\_\_

District: \_\_\_\_\_

PCA#, Advance Account Number, Local Cost Share Number: \_\_\_\_\_

Sponsor Name: \_\_\_\_\_

CEFMS Receiving Voucher Number: \_\_\_\_\_

Date of Transfer: \_\_\_\_\_

Amount of Transfer: \_\_\_\_\_

*If you have any questions please contact the Disbursing Division at (901) 874-8432.*

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APPENDIX 4-6

PROGRAMMATIC AGREEMENT

Appendix 4-6, *Programmatic Agreement*, presents the final Programmatic Agreement that will guide the Section 106 process in the determination of project effects as they become known through the course of the project. Implementation of the Programmatic Agreement assists to ensure resources and their proper treatment are taken into consideration in the planning process.

PROGRAMMATIC AGREEMENT

AMONG

FEDERAL HIGHWAY ADMINISTRATION  
ARIZONA STATE HISTORIC PRESERVATION OFFICE  
ARIZONA DEPARTMENT OF TRANSPORTATION  
ARIZONA STATE LAND DEPARTMENT  
ARIZONA STATE MUSUEM  
ARMY CORPS OF ENGINEERS  
BUREAU OF LAND MANAGEMENT  
BUREAU OF RECLAMATION  
SALT RIVER PROJECT  
MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION  
FLOOD CONTROL DISTRICT OF MARICOPA COUNTY  
ROOSEVELT IRRIGATION DISTRICT  
CITY OF AVONDALE  
CITY OF CHANDLER  
CITY OF GLENDALE  
CITY OF PHOENIX  
CITY OF TOLLESON  
AK-CHIN INDIAN COMMUNITY  
CHEMEHUEVI TRIBE  
COCOPAH TRIBE  
COLORADO RIVER INDIAN TRIBE  
FORT MCDOWELL YAVAPAI NATION  
FORT MOJAVE TRIBE  
FORT YUMA-QUECHAN TRIBE  
GILA RIVER INDIAN COMMUNITY  
HAVASUPAI TRIBE  
HOPI TRIBE  
HUALAPAI TRIBE  
KAIBAB-PAIUTE TRIBE  
NAVAJO NATION  
PASCUA YAQUI TRIBE  
PUEBLO OF ZUNI  
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY  
SAN CARLOS APACHE TRIBE  
SAN JUAN SOUTHERN PAIUTE  
TOHONO O'ODHAM NATION  
TONTON APACHE TRIBE  
WHITE MOUNTAIN APACHE TRIBE  
YAVAPAI-APACHE NATION



**LOOP 202 – SOUTH MOUNTAIN FREEWAY PROJECT  
PROJECT NO. NH-202-D(ADY)  
TRACS NO. 202L MA 054 H5764 01L  
MARICOPA COUNTY, ARIZONA**

**WHEREAS**, the Federal Highway Administration (FHWA) proposes to construct a loop highway connecting Interstate 10 (I-10) west of Phoenix with I-10 south of Phoenix (the Loop 202 – South Mountain Freeway Project), a federally-funded project in Maricopa County, Arizona (hereafter referred to as “the Project”); and

**WHEREAS**, the proposed Project may have an adverse effect upon historic properties, which are defined as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property or resource” (National Historic Preservation Act [NHPA] 16 U.S.C. 470w, Title III, Section 301 [5]); and

**WHEREAS**, all the historic properties that may be affected by this Project have not yet been identified; and

**WHEREAS**, the proposed project may have an adverse effect upon Traditional Cultural Properties (TCP), which are defined as any place that is “eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community” (National Park Service National Register Bulletin: Guidelines for Evaluating and Documenting Traditional Properties); and

**WHEREAS**, all the Traditional Cultural Properties that may be affected by this Project have not yet been identified; and

**WHEREAS**, the Arizona Department of Transportation (ADOT), acting as agent for FHWA, has participated in consultation and has been invited to be a signatory to this Programmatic Agreement (Agreement); and

**WHEREAS**, the FHWA has consulted with the Arizona State Historic Preservation Office (SHPO), the Bureau of Land Management (BLM), the Army Corps of Engineers (Corps), the Bureau of Reclamation (Reclamation), the Bureau of Indian Affairs, the Arizona State Land Department (ASLD), the Salt River Project (SRP), the City of Avondale (COA), the City of Chandler (COC), the City of Glendale (COG), the City of Phoenix (COP), the City of Tolleson (COT), and the Advisory Council on Historic Preservation (the Council) in accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR §800.6(b)(2)) to resolve the possible adverse effects of the Project on historic properties; and

**WHEREAS**, the Council has participated in consultation and has been invited to be a signatory to the Agreement; and

**WHEREAS**, FHWA and the U.S. Army Corps of Engineers (Corps) have agreed that FHWA will assume lead responsibility for compliance under Section 106 of the National Historic Preservation Act for issuance of permits by the Corps for the development of land and waters of the United States under Section 404 of the Clean Water Act, and the Corps has participated in consultation and been invited to concur in this agreement; and

**WHEREAS**, the Indian Tribes that may attach religious or cultural importance to affected properties have been consulted [pursuant to 36 CFR § 800.2 (c)(2)(ii)(A-F)], and the following tribes have been invited to be Concurring Parties in the Agreement: the Ak-Chin Indian Community, the Chemehuevi Tribe, the Cocopah Tribe, the Colorado River Indian Tribe, the Fort McDowell Yavapai Nation, the Fort Mojave Tribe, the Fort Yuma-Quechan Tribe, the Gila River Indian Community, the Havasupai Tribe, the Hopi Tribe, the Hualapai Tribe, the Kaibab-Paiute Tribe, the Navajo Nation, the Pasqua Yaqui Tribe, the Pueblo of Zuni, the Salt River Pima-Maricopa Indian Community, the San Carlos Apache Tribe, the San Juan Southern Paiute, the Tohono O’Odham Nation, the Tonto Apache Tribe, the White Mountain Apache Tribe, the Yavapai-Apache Nation, and the Yavapai-Prescott Indian Tribe; and

**WHEREAS**, in their role as lead federal agency, FHWA has consulted with the SHPO pursuant to 36 CFR Part 800, regulations implementing Section 106 of the NHPA (16 U.S.C. 470f) as revised in 2000; and

**WHEREAS**, SHPO is authorized to enter into this agreement in order to fulfill its role of advising and assisting Federal agencies in carrying out their Section 106 responsibilities under the following federal statutes: Sections 101 and 106 of the NHPA of 1966, as amended, 16 U.S.C. 470f, and pursuant to 36 CFR Part 800, regulations implementing Section 106, at 800.2(c)(1)(i) and 800.6(b); and

**WHEREAS**, SHPO is authorized to advise and assist federal and state agencies in carrying out their historic preservation responsibilities and cooperate with these agencies under A.R.S. § 41-511.04(D)(4); and

**WHEREAS**, by their signature all parties agree that the regulations specified in the ADOT document, “ADOT Standard Specifications for Road and Bridge Construction” (Section 104.12, 2000) will account for the cultural resources in potential material sources used in Project construction; and

**WHEREAS**, an agreement regarding the treatment and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony would be developed by the Arizona State Museum (ASM) for state and private land; and

**WHEREAS**, in the event that any portion of the Project takes place on Tribal Lands, an agreement regarding the treatment and disposition of Human Remains, Associated Funerary



Objects, and Objects of Cultural Patrimony would be developed by the appropriate Tribal entities; and

**WHEREAS**, Human Remains and Associated Funerary Objects recovered on Federal or Tribal lands will be treated in accordance with the Native American Graves and Protection Repatriation Act (NAGPRA); and

**WHEREAS**, any data recovery on State and private land necessitated by the Project must be permitted by the ASM pursuant to A.R.S. § 41-842; and

**WHEREAS**, any data recovery on Federal lands necessitated by the Project must be permitted under the Archaeological Resource Protection Act (ARPA) in accordance with the Federal land-holding agency; and

**WHEREAS**, in the event that any data recovery for the Project should take place on Tribal lands, all applicable permits would be obtained; and

**NOW, THEREFORE**, all parties agree that upon FHWA's decision to proceed with the Project, FHWA shall ensure that the following stipulations are implemented in order to take into account the effects of the Project on historic properties, and that these stipulations shall govern the Project and all of its parts until this Agreement expires or is terminated.

**Stipulations**

FHWA will ensure that the following measures are carried out.

1. Plans submittal and identification of Area of Potential Effect (APE)  
  
Upon receipt by ADOT, copies of the plans and related documents pertaining to this undertaking including the 30%, 60% and 95% draft construction documents, the Project assessments, design concept reports and cultural resources survey reports will be provided to the consulting parties for review and comment.
2. Identification of historic properties and recommendation of effect  
  
ADOT, on behalf of FHWA, in consultation with all parties to this Agreement, shall ensure that new inventory surveys of the Project APE will include identification of all cultural resources and determinations of eligibility will be made in accordance with 36 CFR § 800.4 for all historic properties.
3. Identification, Evaluation, Documentation, and Mitigation of Impacts to Traditional Cultural Places  
  
FHWA, in consultation with all parties to this Agreement, shall ensure that consultation with the Indian Tribes that may attach religious or cultural importance to affected properties will continue in order to identify, evaluate, document, and mitigate possible

impacts to Traditional Cultural Places according to National Park Service National Register Bulletin Number 38: Guidelines for Evaluating and Documenting Traditional Properties.

4. Development of a Data Recovery Work Plan

The data recovery work plan will be submitted by ADOT, on behalf of FHWA, to all parties to this Agreement for 30 calendar days' review. The data recovery plan will be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37). Unless any signatory or concurring party objects to the data recovery plan within 30 calendar days after receipt of the plan, FHWA shall ensure that it is implemented prior to construction.

5. The Data Recovery Work Plan (the Work Plan) will specify:

- a) The properties or portions of properties where data recovery is to be carried out. Also, it will specify any property or portion of property that would be destroyed or altered without treatment;
- b) The results of previous research relevant to the Project, and the research questions to be addressed through data recovery, with an explanation of their relevance and importance;
- c) The field and laboratory analysis methods to be used, with an explanation of their relevance to the research questions;
- d) The methods to be used in analysis, data management, and dissemination of data to the professional community and the public;
- e) The proposed disposition and curation of recovered materials and records in accordance with 36 CFR 79;
- f) Procedures for monitoring, evaluating and treating discoveries of unexpected or newly identified properties during construction of the Project, including consultation with other parties;
- g) A protocol for the treatment of Human Remains, in the event that such remains are discovered, describing methods and procedures for the recovery, analysis, treatment, and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony. This protocol will reflect concerns and/or conditions identified as a result of consultations among parties to this Agreement;
- h) A proposed schedule for Project tasks, including a schedule for the submission of draft and final reports to consulting parties.



#### 6. Review and comment on the Work Plan

- a) Upon receipt of a draft of the Work Plan, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the plan.
- b) If revisions to the Work Plan are made all consulting parties have 20 calendar days from receipt to review the revisions and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the plan or report.
- c) Once the Work Plan is determined adequate by all parties (with SHPO concurrence), FHWA shall issue authorization to proceed with the implementation of the Work Plan, subject to obtaining all necessary permits.
- d) Final drafts of the Work Plan will be provided to all consulting parties.

#### 7. Review and Comment on Preliminary Report of Findings

- a) Upon completion of fieldwork, the institution, firm, or consultant responsible for the work will prepare and submit a brief Preliminary Report of Findings.
- b) Upon receipt of a draft of the Preliminary Report, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the Report.
- c) If revisions to the Preliminary Report of Findings are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the report.
- d) Once the Preliminary Report of Findings has been accepted as a final document, ADOT, on behalf of FHWA, will notify appropriate Project participants that construction may proceed.

#### 8. Review and Comment on Data Recovery Report

- a) Upon completion of data recovery, a report will be prepared incorporating all appropriate data analyses and interpretations. The schedule for completion of the report will be developed in accordance with Stipulation 5 (h) above, and in consultation with signatories and concurring parties to this Agreement.

- b) Upon receipt of the data recovery report, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the Report.

- b) If revisions to the data recovery report are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the report.

#### 9. Standards for Monitoring and Data Recovery

All historic preservation work carried out pursuant to this Agreement shall be carried out by or under the supervision of a person, or persons, meeting at a minimum the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739).

#### 10. Curation

All materials and records resulting from the data recovery program conducted within the Project area, except as noted below, shall be curated in accordance with standards 36 CFR 79 and guidelines generated by ASM. The repository for materials either will be ASM or one that meets those standards and guidelines in Maricopa County.

All materials and records resulting from data recovery undertaking on land owned by Reclamation shall be curated in accordance with standards 36 CFR 79 and guidelines generated by the Huhugam Heritage Center, Gila River Indian Reservation. The repository for materials recovered from Reclamation land will be the Huhugam Heritage Center.

All materials subject to repatriation under NAGPRA, A.R.S. § 41-844 and A.R.S. § 41-865 shall be maintained in accordance with the burial agreement until any specified analyses, as determined following consultation with the appropriate Indian tribes and individuals, are complete and the materials are returned.

#### 11. Additional Inventory Survey

ADOT, on behalf of FHWA, in consultation with all parties to this agreement shall ensure that new inventory surveys of additional rights-of-way and temporary construction easements will include determinations of eligibility that are made in accordance with 36 CFR § 800.4(c) for all historic properties, including any added staging or use areas. Should any party to this Agreement disagree with FHWA regarding eligibility, the SHPO shall be consulted and resolution sought within 30 calendar days. If the FHWA and SHPO disagree on eligibility, FHWA shall request a formal determination from the Keeper of the National Register.



## 12. Objection by a Signatory

Should any signatory to this Agreement object within 30 days to any plan or report provided for review or to any aspect of this undertaking related to historic preservation issues, FHWA shall consult with the objecting party to resolve the objection. If an objection by a signatory to this agreement cannot be resolved, FHWA shall request further comments of the Council with reference only to the subject of the dispute; the FHWA's responsibility to carry out all actions under this Agreement that are not the subject of the dispute will remain unchanged.

## 13. Discoveries

If potential historic or prehistoric archaeological materials or properties are discovered after construction begins, the person in charge of the construction shall promptly report the discovery to the ADOT Historic Preservation Specialist, representing FHWA. If human remains or funerary objects are discovered, ADOT shall require construction to immediately cease within the area of the discovery, take steps to protect the discovery, and notify and consult with appropriate Native American groups to determine treatment and disposition measures in accordance with the previously implemented burial agreement. The Director of the ASM (the Director) shall also be informed. In consultation with the Director and ADOT, on behalf of FHWA, the person in charge of construction shall immediately take steps to secure and maintain preservation of the discovery. If the discovery appears to involve Human Remains as defined in ASM rules implementing A.R.S. § 41-844 and 41-865, ASM and FHWA shall ensure that the discovery is treated according to the burial agreement. If the discovery is on Federal or Tribal land and appears to involve Human Remains as defined in NAGPRA, ADOT on behalf of FHWA shall ensure that the discovery is treated according to NAGPRA.

If Human Remains are not involved, then the ADOT Historic Preservation Specialist shall evaluate the discovery, and in consultation with FHWA and SHPO, determine if the Plan previously approved in accordance with Stipulation 4 is appropriate to the nature of the discovery. If appropriate, the Plan shall be implemented by ADOT, on behalf of FHWA. If the Plan is not appropriate to the discovery, FHWA shall ensure that an alternate plan for the resolution of adverse effect is developed pursuant to 36 CFR § 800.6 and circulated to the consulting parties, who will have 48-hours to review and comment upon the alternate plan. FHWA shall consider the resulting comments, and shall implement the alternate plan once a project specific permit has been issued.

If potential prehistoric or historic archaeological materials or properties are discovered on Reclamation land after construction has begun, the person in charge of construction shall promptly report the discovery to the Phoenix Area Office of the Bureau of Reclamation as well as the ADOT Historic Preservation Specialist.

## 14. Amendments

This Agreement may be amended by the signatories pursuant to 36 CFR § 800.6 (c) (7). FHWA shall file any amendments with the Council and provide notice to the concurring parties.

## 15. Termination

Any signatory may terminate the Agreement by providing 30 day written notification to the other signatories. During this 30-day period, the signatories may consult to seek agreement on amendments or other actions that would avoid termination pursuant to 36 CFR § 800.6 (b). If the parties cannot agree on actions to resolve disagreements, FHWA will comply with 36 CFR § 800.7(a).

16. In the event the FHWA or ADOT cannot carry out the terms of this agreement, the FHWA will comply with 36 CFR § 800.3 through 800.6.

17. There shall be an annual meeting among FHWA, SHPO, and ADOT to review the effectiveness and application of this agreement, to be held on or near the anniversary date of the execution of this agreement.

This agreement shall be null and void if its terms are not carried out within ten (10) years from the date of its execution, unless the signatories agree in writing to an extension for carrying out its terms.

Execution of this Agreement by the signatories and its subsequent filing with the Council is evidence that the Federal Highway Administration has afforded the Advisory Council on Historic Preservation an opportunity to comment on Loop 202 – South Mountain Freeway Project and its effects on historic properties, and that the Federal Highway Administration has taken into account the effects of the undertaking on historic properties.

**SIGNATORIES**

FEDERAL HIGHWAY ADMINISTRATION

By Steph D. Thomas Date 12/20/06  
Title Environmental Program Manager

ARIZONA STATE HISTORIC PRESERVATION OFFICER

By James Giaman Date 12/28/06  
Title AZSHAPO

**INVITED SIGNATORIES**

ARIZONA DEPARTMENT OF TRANSPORTATION

By Thor Anderson Date 12-5-06  
Title Manager, Environmental Planning Group

**CONCURRING PARTIES**

ARIZONA STATE LAND DEPARTMENT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF RECLAMATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF LAND MANAGEMENT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

U. S. ARMY CORPS OF ENGINEERS

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

SALT RIVER PROJECT

By Ray Hedrick Date 1/15/07  
Title Manager, Siting & Studies

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF RECLAMATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF LAND MANAGEMENT

By \_\_\_\_\_  
Title \_\_\_\_\_ Date \_\_\_\_\_

U. S. ARMY CORPS OF ENGINEERS

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

SALT RIVER PROJECT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

By [Signature] Date 01-16-07  
Title Environment Programs Mgr  
MDOT Transportation Planning Division

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF RECLAMATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF LAND MANAGEMENT

By \_\_\_\_\_  
Title \_\_\_\_\_ Date \_\_\_\_\_

U. S. ARMY CORPS OF ENGINEERS

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

SALT RIVER PROJECT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

By [Signature] Date 1-30-07  
Title Environment and Safety Program Manager



ROOSEVELT IRRIGATION DISTRICT

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

CITY OF AVONDALE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

CITY OF CHANDLER

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

CITY OF GLENDALE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

CITY OF PHOENIX

By Barbara Stahl

Date 1-8-07

Title Historic Preservation Officer

CITY OF TOLLESON

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

AK-CHIN INDIAN COMMUNITY

By \_\_\_\_\_

Date \_\_\_\_\_

Final Programmatic Agreement  
Loop 202 – South Mountain Freeway  
December 2006

CONCURRING PARTIES

ARIZONA STATE MUSEUM

By Jonathan H. Romaguera

Date January 10, 2007

Title DIRECTOR

Addendum

Final Programmatic Agreement  
Loop 202 – South Mountain Freeway  
December 2006

Title \_\_\_\_\_

CHEMEHUEVI TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

COCOPAH TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

COLORADO RIVER INDIAN TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

FORT MCDOWELL YAVAPAI NATION

By [Signature]

Date 1-11-07

Title President

FORT MOJAVE TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

FORT YUMA-QUECHAN TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

GILA RIVER INDIAN COMMUNITY

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

HAVASUPAI TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

HOPI TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

HUALAPAI TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

KAIBAB-PAIUTE TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

NAVAJO NATION

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

PASCUA YAQUI TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_



Title \_\_\_\_\_

PUEBLO OF ZUNI

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

SAN CARLOS APACHE TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

SAN JUAN SOUTHERN PAIUTE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

TOHONO O'ODHAM NATION

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

TONTO APACHE TRIBE

By 

Date 020307

Title \_\_\_\_\_

WHITE MOUNTAIN APACHE TRIBE

By \_\_\_\_\_

Date \_\_\_\_\_

Title \_\_\_\_\_

YAVAPAI-APACHE NATION

By 

Date 1/3/07

Title ARCHAEOLOGIST



**Department of Energy**  
Western Area Power Administration  
Desert Southwest Customer Service Region  
P.O. Box 6457  
Phoenix, AZ 85005-6457

OCT 28 2010

OCT 25 2010

Robert E. Hollis, District Administrator  
Arizona Department of Transportation  
4000 North Central Avenue, Suite 1500  
Phoenix, Arizona 85012-3500

**RE: Programmatic Agreement for the Federal Highway Administration and Arizona Department of Transportation South Mountain Freeway Project, Mohave County.**

Dear Mr. Hollis:

The Western Area Power Administration (Western) has received the Programmatic Agreement (PA) regarding the Environmental Impact Statement (EIS) which was developed for the proposed South Mountain Freeway Project. The signed agreement is enclosed with the letter.

Western supports the Federal Highway Administration and the Arizona Department of Transportation in their section 106 responsibilities related to the project. Western's participation in the PA supports our requirements under the National Historic Preservation Act related to the requirement to move our transmission lines to accommodate the construction of this project.

Western looks forward to participating in future meetings and reviewing related documents for the PA. Thank you for inviting us to sign the PA.

If you have any questions or comments, please do not hesitate to contact Mary Barger at (602) 605-2524 or call me at (602) 605-2592.

Sincerely,

John R. Holt  
Environmental Manager

Enclosure

**PROGRAMMATIC AGREEMENT**

**AMONG**

**FEDERAL HIGHWAY ADMINISTRATION  
ARIZONA STATE HISTORIC PRESERVATION OFFICE  
ARIZONA DEPARTMENT OF TRANSPORTATION**

**LOOP 202 – SOUTH MOUNTAIN FREEWAY PROJECT  
PROJECT NO. NH-202-D(ADY )  
TRACS NO. 202L MA 054 H5764 01L  
MARICOPA COUNTY, ARIZONA**

**WHEREAS**, the Federal Highway Administration (FHWA) proposes to construct a loop highway connecting Interstate 10 (I-10) west of Phoenix with I-10 south of Phoenix (the Loop 202 – South Mountain Freeway Project), a federally-funded project in Maricopa County, Arizona (hereafter referred to as “the Project”); and

**WHEREAS**, the proposed Project may have an adverse effect upon historic properties, which are defined as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property or resource”(National Historic Preservation Act [NHPA] 16 U.S.C. 470w, Title III, Section 301 [5]); and

**WHEREAS**, all the historic properties that may be affected by this Project have not yet been identified; and

**WHEREAS**, the proposed project may have an adverse effect upon Traditional Cultural Properties (TCP) which is defined as a place that is “eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community” (National Park Service National Register Bulletin: Guidelines for Evaluating and Documenting Traditional Properties); and

**WHEREAS**, all the Traditional Cultural Places that may be affected by this Project have not yet been identified; and

**WHEREAS**, the Arizona Department of Transportation (ADOT), acting as agent for FHWA, has participated in consultation and has been invited to be a signatory to this Programmatic Agreement (Agreement); and

**WHEREAS**, the FHWA has consulted with the Arizona State Historic Preservation Office (SHPO), the Bureau of Land Management (BLM), the Bureau of Reclamation (Reclamation), the Bureau of Indian Affairs, the Western Area Power Administration (Western), the Arizona State Land Department (ASLD), the Salt River Project (SRP), the City of Avondale (COA), the City of Chandler (COC), the City of Glendale (COG), the City of Phoenix (COP), the City of Tolleson



(COT), and the Advisory Council on Historic Preservation (the Council) in accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR §800.6(b)(2)) to resolve the possible adverse effects of the Project on historic properties; and

**WHEREAS**, the Council has participated in consultation and has been invited to be a signatory to the Agreement; and

**WHEREAS**, FHWA and the U.S. Army Corps of Engineers (Corps) have agreed that FHWA will assume lead responsibility for compliance under Section 106 of the National Historic Preservation Act for issuance of permits by the Corps for the development of land and waters of the United States under Section 404 of the Clean Water Act, and the Corps has participated in consultation and been invited to concur in this agreement; and

**WHEREAS**, the Indian Tribes that may attach religious or cultural importance to affected properties have been consulted [pursuant to 36 CFR § 800.2 (c)(2)(ii)(A-F)], and the following tribes have been invited to be Concurring Parties in the Agreement: the Ak-Chin Indian Community, the Chemehuevi Tribe, the Cocopah Tribe, the Colorado River Indian Tribe, the Fort McDowell Yavapai Nation, the Fort Mojave Tribe, the Fort Yuma-Quechan Tribe, the Gila River Indian Community, the Havasupai Tribe, the Hopi Tribe, the Hualapai Tribe, the Kaibab-Paiute Tribe, the Navajo Nation, the Pasqua Yaqui Tribe, the Pueblo of Zuni, the Salt River Pima-Maricopa Indian Community, the San Carlos Apache Tribe, the San Juan Southern Paiute, the Tohono O'Odham Nation, the Tonto Apache Tribe, the White Mountain Apache Tribe, the Yavapai-Apache Nation, and the Yavapai-Prescott Indian Tribe; and

**WHEREAS**, in their role as lead federal agency, FHWA has consulted with the SHPO pursuant to 36 CFR Part 800, regulations implementing Section 106 of the NHPA (16 U.S.C. 470f) as revised in 2000; and

**WHEREAS**, SHPO is authorized to enter into this agreement in order to fulfill its role of advising and assisting Federal agencies in carrying out their Section 106 responsibilities under the following federal statutes: Sections 101 and 106 of the NHPA of 1966, as amended, 16 U.S.C. 470f, and pursuant to 36 CFR Part 800, regulations implementing Section 106, at 800.2(c)(1)(i) and 800.6(b); and

**WHEREAS**, SHPO is authorized to advise and assist federal and state agencies in carrying out their historic preservation responsibilities and cooperate with these agencies under A.R.S. § 41-511.04(D)(4); and

**WHEREAS**, by their signature all parties agree that the regulations specified in the ADOT document, "ADOT Standard Specifications for Road and Bridge Construction" (Section 104.12, 2000) will account for the cultural resources in potential material sources used in Project construction; and

**WHEREAS**, an agreement regarding the treatment and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony would be developed by the Arizona State Museum (ASM) for state and private land; and

**WHEREAS**, in the event that any portion of the Project takes place on Tribal Lands, an agreement regarding the treatment and disposition of Human Remains, Associated Funerary

Objects, and Objects of Cultural Patrimony would be developed by the appropriate Tribal entities; and

**WHEREAS**, Human Remains and Associated Funerary Objects recovered on Federal or Tribal lands will be treated in accordance with the Native American Graves and Protection Repatriation Act (NAGPRA); and

**WHEREAS**, any data recovery on State and private land necessitated by the Project must be permitted by the ASM pursuant to A.R.S. § 41-842; and

**WHEREAS**, any data recovery on Federal lands necessitated by the Project must be permitted under the Archaeological Resource Protection Act (ARPA) in accordance with the Federal land-holding agency; and

**WHEREAS**, in the event that any data recovery for the Project should take place on Tribal lands, all applicable permits would be obtained; and

**NOW, THEREFORE**, all parties agree that upon FHWA's decision to proceed with the Project, FHWA shall ensure that the following stipulations are implemented in order to take into account the effects of the Project on historic properties, and that these stipulations shall govern the Project and all of its parts until this Agreement expires or is terminated.

**Stipulations**

FHWA will ensure that the following measures are carried out.

1. Plans submittal and identification of Area of Potential Effect (APE)

Upon receipt by ADOT, copies of the plans and related documents pertaining to this undertaking including the 30%, 60% and 95% draft construction documents, the Project assessments, design concept reports and cultural resources survey reports will be provided to the consulting parties for review and comment.

2. Identification of historic properties and recommendation of effect

ADOT, on behalf of FHWA, in consultation with all parties to this Agreement, shall ensure that new inventory surveys of the Project APE will include identification of all cultural resources and determinations of eligibility that are made in accordance with 36 CFR § 800.4 for all historic properties.

3. Identification, Evaluation, Documentation, and Mitigation of Impacts to Traditional Cultural Places



FHWA in consultation with all parties to this Agreement, shall ensure that consultation with the Indian Tribes that may attach religious or cultural importance to affected properties will continue in order to identify, evaluate, document, and mitigate possible impacts to Traditional Cultural Places according to National Park Service National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Properties.

4. Development of a Data Recovery Work Plan

The data recovery work plan will be submitted by ADOT, on behalf of FHWA, to all parties to this Agreement for 30 calendar days' review. The data recovery plan will be consistent with the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37). Unless any signatory or concurring party objects to the data recovery plan within 30 calendar days after receipt of the plan, FHWA shall ensure that it is implemented prior to construction.

5. The Data Recovery Work Plan (the Work Plan) will specify:

- a) The properties or portions of properties where data recovery is to be carried out. Also, it will specify any property or portion of property that would be destroyed or altered without treatment;
- b) The results of previous research relevant to the Project, and the research questions to be addressed through data recovery, with an explanation of their relevance and importance;
- c) The field and laboratory analysis methods to be used, with an explanation of their relevance to the research questions;
- d) The methods to be used in analysis, data management, and dissemination of data to the professional community and the public;
- e) The proposed disposition and curation of recovered materials and records in accordance with 36 CFR 79;
- f) Procedures for monitoring, evaluating and treating discoveries of unexpected or newly identified properties during construction of the Project, including consultation with other parties;
- g) A protocol for the treatment of Human Remains, in the event that such remains are discovered, describing methods and procedures for the recovery, analysis, treatment, and disposition of Human Remains, Associated Funerary Objects, and Objects of Cultural Patrimony. This protocol will reflect concerns and/or conditions identified as a result of consultations among parties to this Agreement;
- h) A proposed schedule for Project tasks, including a schedule for the submission of draft and final reports to consulting parties.

6. Review and comment on the Work Plan

- a) Upon receipt of a draft of the Work Plan, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide comments to ADOT. All comments shall be in writing with copies provided to the other consulting parties. Lack of response within this review period will be taken as concurrence with the plan.
- b) If revisions to the Work Plan are made all consulting parties have 20 calendar days from receipt to review the revisions and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the plan or report.
- c) Once the Work Plan is determined adequate by all parties (with SHPO concurrence), FHWA shall issue authorization to proceed with the implementation of the Work Plan, subject to obtaining all necessary permits.
- d) Final drafts of the Work Plan will be provided to all consulting parties.

7. Review and Comment on Preliminary Report of Findings

- a) Upon completion of fieldwork, the institution, firm, or consultant responsible for the work will prepare and submit a brief Preliminary Report of Findings.
- b) Upon receipt of a draft of the Preliminary Report, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the Report.
- c) If revisions to the Preliminary Report of Findings are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the report.
- d) Once the Preliminary Report of Findings has been accepted as a final document, ADOT, on behalf of FHWA, will notify appropriate Project participants that construction may proceed.

8. Review and Comment on Data Recovery Report

- a) Upon completion of data recovery, a report will be prepared incorporating all appropriate data analyses and interpretations. The schedule for completion of the



report will be developed in accordance with Stipulation 5 (h) above, and in consultation with signatories and concurring parties to this Agreement.

- b) Upon receipt of the data recovery report, ADOT, on behalf of FHWA, will review and subsequently submit such documents concurrently to all consulting parties for review. All consulting parties will have 30 calendar days from receipt to review and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the Report.
- c) If revisions to the data recovery report are made, all consulting parties have 20 calendar days from receipt to review the revisions and provide written comments to ADOT. Lack of response within this review period will be taken as concurrence with the report.

#### 9. Standards for Monitoring and Data Recovery

All historic preservation work carried out pursuant to this Agreement shall be carried out by or under the supervision of a person, or persons, meeting at a minimum the Secretary of the Interior's Professional Qualifications Standards (48 FR 44738-44739).

#### 10. Curation

All materials and records resulting from the data recovery program conducted within the Project area, except as noted below, shall be curated in accordance with standards 36 CFR 79 and guidelines generated by ASM. The repository for materials either will be ASM or one that meets those standards and guidelines in Maricopa County.

All materials and records resulting from data recovery undertaking on land owned by Reclamation shall be curated in accordance with standards 36 CFR 79 and guidelines generated by the Huhugam Heritage Center, Gila River Indian Reservation. The repository for materials recovered from Reclamation land will be the Huhugam Heritage Center.

All materials subject to repatriation under NAGPRA, A.R.S. § 41-844 and A.R.S. § 41-865 shall be maintained in accordance with the burial agreement until any specified analyses, as determined following consultation with the appropriate Indian tribes and individuals, are complete and the materials are returned.

#### 11. Additional Inventory Survey

ADOT, on behalf of FHWA, in consultation with all parties to this agreement shall ensure that new inventory surveys of additional rights-of-way and temporary construction easements will include determinations of eligibility that are made in accordance with 36 CFR § 800.4(c) for all historic properties, including any added staging or use areas. Should any party to this Agreement disagree with FHWA regarding eligibility, the SHPO shall be consulted and resolution sought within 30 calendar days. If the FHWA and SHPO disagree

on eligibility, FHWA shall request a formal determination from the Keeper of the National Register.

#### 12. Objection by a Signatory or Concurring Party

Should any signatory to this Agreement object within 30 days to any plan or report provided for review or to any aspect of this undertaking related to historic preservation issues, FHWA shall consult with the objecting party to resolve the objection. If an objection by a signatory to this agreement cannot be resolved, FHWA shall request further comments of the Council with reference only to the subject of the dispute; the FHWA's responsibility to carry out all actions under this Agreement that are not the subject of the dispute will remain unchanged.

#### 13. Discoveries

If potential historic or prehistoric archaeological materials or properties are discovered after construction begins, the person in charge of the construction shall promptly report the discovery to the ADOT Historic Preservation Specialist, representing FHWA. If human remains or funerary objects are discovered, ADOT shall require construction to immediately cease within the area of the discovery, take steps to protect the discovery, and notify and consult with appropriate Native American groups to determine treatment and disposition measures in accordance with the previously implemented burial agreement. The Director of the ASM (the Director) shall also be informed. In consultation with the Director and ADOT, on behalf of FHWA, the person in charge of construction shall immediately take steps to secure and maintain preservation of the discovery. If the discovery appears to involve Human Remains as defined in ASM rules implementing A.R.S. § 41-844 and 41-865, ASM and FHWA shall ensure that the discovery is treated according to the burial agreement. If the discovery is on Federal or Tribal land and appears to involve Human Remains as defined in NAGPRA, ADOT on behalf of FHWA shall ensure that the discovery is treated according to NAGPRA.

If Human Remains are not involved, then the ADOT Historic Preservation Specialist shall evaluate the discovery, and in consultation with FHWA and SHPO, determine if the Plan previously approved in accordance with Stipulation 4 is appropriate to the nature of the discovery. If appropriate, the Plan shall be implemented by ADOT, on behalf of FHWA. If the Plan is not appropriate to the discovery, FHWA shall ensure that an alternate plan for the resolution of adverse effect is developed pursuant to 36 CFR § 800.6 and circulated to the consulting parties, who will have 48 hours to review and comment upon the alternate plan. FHWA shall consider the resulting comments, and shall implement the alternate plan once a project specific permit has been issued.

If potential prehistoric or historic archaeological materials or properties are discovered on Reclamation land after construction has begun, the person in charge of construction shall promptly report the discovery to the Phoenix Area Office of the Bureau of Reclamation as well as the ADOT Historic Preservation Specialist.



14. Amendments

This Agreement may be amended by the signatories pursuant to 36 CFR § 800.6 (c) (7). FHWA shall file any amendments with the Council and provide notice to the concurring parties.

15. Termination

Any signatory may terminate the Agreement by providing 30 day written notification to the other signatories. During this 30-day period, the signatories may consult to seek agreement on amendments or other actions that would avoid termination pursuant to 36 CFR § 800.6 (b). If the parties cannot agree on actions to resolve disagreements, FHWA will comply with 36 CFR § 800.7(a).

16. In the event the FHWA or ADOT cannot carry out the terms of this agreement, the FHWA will comply with 36 CFR § 800.3 through 800.6.

17. There shall be an annual meeting among FHWA, SHPO, and ADOT to review the effectiveness and application of this agreement, to be held on or near the anniversary date of the execution of this agreement.

This agreement shall be null and void if its terms are not carried out within ten (10) years from the date of its execution, unless the signatories agree in writing to an extension for carrying out its terms.

Execution of this Agreement by the signatories and its subsequent filing with the Council is evidence that the Federal Highway Administration has afforded the Advisory Council on Historic Preservation an opportunity to comment on Loop 202 – South Mountain Freeway Project and its effects on historic properties, and that the Federal Highway Administration has taken into account the effects of the undertaking on historic properties.

SIGNATORIES

FEDERAL HIGHWAY ADMINISTRATION

By Mary E. Faye  
Title Environmental Program Manager

Date 9/16/2010

ARIZONA STATE HISTORIC PRESERVATION OFFICER

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

INVITED SIGNATORIES

ARIZONA DEPARTMENT OF TRANSPORTATION

By Shirley Anderson  
Title Manager, Environmental Planning Group

Date 9/15/10

CONCURRING PARTIES

ARIZONA STATE LAND DEPARTMENT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF RECLAMATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

BUREAU OF LAND MANAGEMENT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

U.S ARMY CORPS OF ENGINEERS

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

SALT RIVER PROJECT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

FLOOD CONTROL DISTRICT OF MARICOPA COUNTY

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

ROOSEVELT IRRIGATION DISTRICT

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

CITY OF AVONDALE

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

CITY OF CHANDLER

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

CITY OF GLENDALE

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

CITY OF PHOENIX

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_

CITY OF TOLLESON

By \_\_\_\_\_ Date \_\_\_\_\_  
Title \_\_\_\_\_



AK-CHIN INDIAN COMMUNITY

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

CHEMEHUEVI TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

COCOPAH TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

COLORADO RIVER INDIAN TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

FORT MCDOWELL YAVAPAI NATION

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

FORT MOJAVE TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

FORT YUMA-QUECHAN TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

GILA RIVER INDIAN COMMUNITY

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

HAVASUPAI TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

HOPI TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

HUALAPAI TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

KAIBAB-PAIUTE TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

NAVAJO NATION

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

PASCUA YAQUI TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

PUEBLO OF ZUNI

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

SAN CARLOS APACHE TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

SAN JUAN SOUTHERN PAIUTE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

TOHONO O'ODHAM NATION

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

TONTO APACHE TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

WHITE MOUNTAIN APACHE TRIBE

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

YAVAPAI-APACHE NATION

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

ARIZONA STATE MUSEUM

By \_\_\_\_\_ Date \_\_\_\_\_

Title \_\_\_\_\_

WESTERN AREA POWER ADMINISTRATION

By [Signature]

Title Regional Manager, ASW

Date 10/18/2010

APPENDIX 4-7

FARMLAND CONVERSION

Appendix 4-7, *Farmland Conversion*, contains the US Department of Agriculture Natural Resources Conservation Services Farmland Conversion Impact Rating form (form NRCS-CPA-106) for Corridor Type Projects. The Farmland Protection Policy Act (FPPA) was established to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. This impact rating is being completed to ensure compliance with FPPA.

U.S. DEPARTMENT OF AGRICULTURE  
Natural Resources Conservation Service

NRCS-CPA-106  
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 11/18/13		4. Sheet 1 of 3	
1. Name of Project South Mountain Transportation Corridor		5. Federal Agency Involved Federal Highway Administration			
2. Type of Project EIS/LDCR		6. County and State Maricopa County, Arizona			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 11/18/13		2. Person Completing Form Andrew Burnes	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form).		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 267,295	
5. Major Crop(s) alfalfa, cotton, grains		6. Farmable Land in Government Jurisdiction Acres: 267,295 % 3.2		7. Amount of Farmland As Defined in FPPA Acres: 190,182 % 3.2	
8. Name Of Land Evaluation System Used N/A		9. Name of Local Site Assessment System N/A		10. Date Land Evaluation Returned by NRCS	
PART III (To be completed by Federal Agency)		Alternative Corridor For Segment - Western Section			
		W59		W71	
A. Total Acres To Be Converted Directly		588		501	
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		588		501	
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		588		501	
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value		24		25	
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)		85		87	
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))		Maximum Points			
1. Area in Nonurban Use		15		10	
2. Perimeter in Nonurban Use		10		7	
3. Percent Of Corridor Being Farmed		20		12	
4. Protection Provided By State And Local Government		20		0	
5. Size of Present Farm Unit Compared To Average		10		5	
6. Creation Of Nonfarmable Farmland		25		10	
7. Availability Of Farm Support Services		5		3	
8. On-Farm Investments		20		15	
9. Effects Of Conversion On Farm Support Services		25		8	
10. Compatibility With Existing Agricultural Use		10		4	
TOTAL CORRIDOR ASSESSMENT POINTS		160		74	
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100		85	
Total Corridor Assessment (From Part VI above or a local site assessment)		160		74	
TOTAL POINTS (Total of above 2 lines)		260		159	
1. Corridor Selected:		2. Total Acres of Farmlands to be Converted by Project:		3. Date Of Selection:	
				4. Was A Local Site Assessment Used?  YES <input type="checkbox"/> NO <input type="checkbox"/>	
5. Reason For Selection:					
Signature of Person Completing this Part: _____ DATE _____					
NOTE: Complete a form for each segment with more than one Alternate Corridor					



FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request 11/18/13		4. Sheet 2 of 3	
1. Name of Project South Mountain Transportation Corridor		5. Federal Agency Involved Federal Highway Administration			
2. Type of Project EIS/LDCR		6. County and State Maricopa County, Arizona			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 11/18/13		2. Person Completing Form Andrew Burnes	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 267,295		Average Farm Size 302	
5. Major Crop(s) alfalfa, cotton, grains	6. Farmable Land in Government Jurisdiction Acres: 267,295 % 3.2		7. Amount of Farmland As Defined in FPPA Acres: 190,182 % 3.2		
8. Name Of Land Evaluation System Used N/A	9. Name of Local Site Assessment System N/A		10. Date Land Evaluation Returned by NRCS		

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment - Western Section			
	W101EPR	W101WPR		W101CFR
A. Total Acres To Be Converted Directly	744	788		737
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	744	788		737
PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	744	788		737
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	21	23		25
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	88	85		85
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points			
1. Area in Nonurban Use	15	9	10	9
2. Perimeter in Nonurban Use	10	6	7	7
3. Percent Of Corridor Being Farmed	20	11	12	12
4. Protection Provided By State And Local Government	20	0	0	0
5. Size of Present Farm Unit Compared To Average	10	5	5	5
6. Creation Of Nonfarmable Farmland	25	10	10	10
7. Availability Of Farm Support Services	5	3	3	3
8. On-Farm Investments	20	15	15	15
9. Effects Of Conversion On Farm Support Services	25	8	8	8
10. Compatibility With Existing Agricultural Use	10	4	4	4
TOTAL CORRIDOR ASSESSMENT POINTS	160	71	74	73
PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V)	100	88	85	85
Total Corridor Assessment (From Part VI above or a local site assessment)	160	71	74	73
TOTAL POINTS (Total of above 2 lines)	260	159	159	158
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?	
			YES <input type="checkbox"/> NO <input type="checkbox"/>	
5. Reason For Selection:				

Signature of Person Completing this Part:DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency)		3. Date of Land Evaluation Request		4. Sheet 3 of 3	
1. Name of Project South Mountain Transportation Corridor		5. Federal Agency Involved Federal Highway Administration			
2. Type of Project EIS		6. County and State Maricopa County, Arizona			
PART II (To be completed by NRCS)		1. Date Request Received by NRCS 11/18/13		2. Person Completing Form Andrew Burnes	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated 267,295		Average Farm Size 302	
5. Major Crop(s) alfalfa, cotton, grains	6. Farmable Land in Government Jurisdiction Acres: 267,295 % 3.2		7. Amount of Farmland As Defined in FPPA Acres: 190,182 % 3.2		
8. Name Of Land Evaluation System Used N/A	9. Name of Local Site Assessment System N/A		10. Date Land Evaluation Returned by NRCS		

PART III (To be completed by Federal Agency)	Alternative Corridor For Western & Eastern Sections			
	W101EFR	E1		
A. Total Acres To Be Converted Directly	735	135		
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	735	135		
PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	735	135		
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	22	22		
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)	88	88		
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points			
1. Area in Nonurban Use	15	9	6	
2. Perimeter in Nonurban Use	10	6	5	
3. Percent Of Corridor Being Farmed	20	12	0	
4. Protection Provided By State And Local Government	20	0	0	
5. Size of Present Farm Unit Compared To Average	10	5	0	
6. Creation Of Nonfarmable Farmland	25	10	0	
7. Availability Of Farm Support Services	5	3	0	
8. On-Farm Investments	20	15	0	
9. Effects Of Conversion On Farm Support Services	25	8	0	
10. Compatibility With Existing Agricultural Use	10	4	4	
TOTAL CORRIDOR ASSESSMENT POINTS	160	72	15	
PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V)	100	88	88	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	72	15	
TOTAL POINTS (Total of above 2 lines)	260	160	103	
1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?	
			YES <input type="checkbox"/> NO <input type="checkbox"/>	
5. Reason For Selection:				

Signature of Person Completing this Part:DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

- (1)

How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent - 15 points  
90 to 20 percent - 14 to 1 point(s)  
Less than 20 percent - 0 points
- (2)

How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points  
90 to 20 percent - 9 to 1 point(s)  
Less than 20 percent - 0 points
- (3)

How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?

More than 90 percent - 20 points  
90 to 20 percent - 19 to 1 point(s)  
Less than 20 percent - 0 points
- (4)

Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?

Site is protected - 20 points  
Site is not protected - 0 points
- (5)

Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?  
(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)  
As large or larger - 10 points  
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points
- (6)

If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?

Acreage equal to more than 25 percent of acres directly converted by the project - 25 points  
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)  
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points
- (7)

Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?

All required services are available - 5 points  
Some required services are available - 4 to 1 point(s)  
No required services are available - 0 points
- (8)

Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment - 20 points  
Moderate amount of on-farm investment - 19 to 1 point(s)  
No on-farm investment - 0 points
- (9)

Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted - 25 points  
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)  
No significant reduction in demand for support services if the site is converted - 0 points
- (10)

Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points  
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)  
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

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APPENDIX 4-8

SUPPLEMENTAL BIOLOGICAL RESOURCES INFORMATION

Appendix 4-8, *Supplemental Biological Resources Information*, provides background information in support of the Biological Resources section of the Final Environmental Impact Statement. The information includes correspondence related to wildlife in the Study Area, guidelines for Desert Tortoise surveys, and correspondence related to the Rio Salado Oeste project.

Schippers, Susanna

**From:** Moroge, Michael E.  
**Sent:** Friday, March 31, 2006 11:28 AM  
**To:** Allen, Jack  
**Cc:** Watzek, Kurt  
**Subject:** FW: South Mountain Parkway

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

See AGFD comments below!

-----Original Message-----

From: Alicia Jontz [mailto:AJontz@gf.state.az.us]  
Sent: Friday, March 31, 2006 11:19 AM  
To: Moroge, Michael E.  
Cc: Russ Haughey; Pat Crouch; Ray Schweinsburg; Kelly Wolff  
Subject: South Mountain Parkway

Michael,

On February 17, 2006, Arizona Game and Fish Department biologists met with Phoenix Parks and Recreation Department at South Mountain to evaluate the proposed route for the continuation of Loop 202, the alternative routes and the proposed wildlife crossings. The Department is strongly committed to maintaining connectivity between wildlife habitats within Arizona. Connectivity should be maintained between South Mountain Park and the Estrella Mountains if possible. In the review of the proposed freeway construction and site visit several challenges to maintaining connectivity between the mountain ranges were noted.

In order for any wildlife crossings to be successful, it is essential that undeveloped wildlife corridors be established and maintained between South Mountain Park and the Estrella Mountains. The majority of the land falling between the two mountain ranges belongs to the Gila River Indian Community. This land is currently sparsely developed; however, while on site, we observed areas that appear to be prepared for development. GRIC would need to be involved in this process and agree to establish corridors across their land. Since reservations are essentially a sovereign nation and many tribes face economic challenges, it may be extremely difficult to develop a relationship with the GRIC at this late juncture and have them set aside lands that they may otherwise develop to the benefit of their economy and tribal members. Surface streets, such as 51st Avenue, may also prove to be barriers to successful wildlife movement as traffic increases. If wildlife corridors are established it may be necessary to place crossings on surface streets lying between the two mountain ranges.

While reviewing the proposed freeway design, we noted that at final buildout, the new freeway is scheduled to be a solid roadway including both lanes of travel and HOV lanes, without a break in the median. A freeway of this size would require lengthy wildlife underpasses or tunnels. Research has shown that many species will not use these large crossings, due to reduced visibility inside the crossing and the inability to see the other side of the crossing. A preferred alternative would be to separate the two lanes of travel, at crossings, allowing for a break in the median and natural light to penetrate the wildlife crossing. The wildlife crossings would then be built at two shorter crossings, which wildlife will more readily use. If this is not possible, the use of artificial lighting inside the crossing may be sufficient.

Currently, the new freeway is proposed to be a ground level freeway with several small wildlife crossings such as box culverts and a few larger crossings. Coyotes, javelina, bobcats, foxes desert tortoises, snakes, gila monsters, chuckwalls



are known to occur within South Mountain Park. Both historically and recently, there have been several credible, but unconfirmed sightings of Mountain Lions within South Mountain Park. Mule deer have not be documented in South Mountain Park for some time and are believed to be extirpated from the area; however, it is possible they still occur in small numbers. The smaller box culvert type crossings will work for many of the smaller wildlife species; however, larger crossings such a raised bridge, provide a more effective crossing for all wildlife species. Natural stream beds or washes may be appropriate places to locate the bridges. With either type of crossing it is essential that the bottom of the crossing be a natural substrate, not the bottom of a concrete box or metal tube, and that fencing is used to encourage use of the crossing.

In the plans for the proposed wildlife crossings, a multiple use crossing was outlined that would allow for both wildlife crossing and human recreation such as hiking and horseback riding. We would strongly discourage this type of design for a wildlife crossing. While some human traffic is unavoidable, managing for high use human recreation would discourage wildlife from using the area, making the crossing ineffective for wildlife movements.

Several routes are proposed to connect the 202 to I-10 in the west valley. In order to maintain the quality and integrity of our riparian systems, the 75th Avenue alternative would be preferable to the 91st Avenue alternative.

The Department appreciates the effort and consideration put into this project by ADOT and other participating parties. Wildlife crossings on roadways in Arizona are relatively new and previously concessions were not made for wildlife. In this instance all involved parties may need to consider that due to expanding development in the Phoenix metropolitan area and the lack of long term sustainable corridors between South Mountain and the Estrella Mountains across GRIC land, this project may not be the highest priority for wildlife crossings in the state. While some wildlife crossings may be appropriate, large expenditures of state funds may not be appropriate in this case. Any wildlife that migrates from the Estrella Mountains into South Mountain park will find themselves landlocked by development and may end up in the urban area causing conflicts with human populations. If all barriers to movement can be overcome, a comprehensive study of species occurrence and density within South Mountain Park would be useful to determine the types of crossings that should be build, species use of crossings once built, and long term population dynamics pre and post freeway construction.

Alicia Jontz  
Wildlife Manager Central Phoenix  
623-556-1158

Desert Tortoise Survey Guidelines for Environmental Consultants  
June 2010

The following informal guidelines are intended to aid private consultants surveying for presence of tortoises on development projects in the Sonoran Desert. Following these guidelines will not provide quantified abundance estimates.

- 1) Surveys will be most productive during tortoise activity periods, primarily during the summer monsoon season (July – September) but also in the spring (April) and fall (October). Tortoises are most active in the morning and evening during summer, late morning to afternoon in spring and fall. Results from summer/fall monitoring plots indicate that tortoises are active at temperatures from 20 to 45°C (1cm above ground).
- 2) In the Sonoran Desert, tortoises usually occur on rocky slopes in desertscrub to semidesert grassland, as well as along washes, and extending into creosotebush flats. Burrows typically occur below rocks and boulders and may be irregularly shaped. Soil burrows and those in wash banks may have a 1/2-moon appearance.
- 3) Presence-absence surveys (3 hectare plots) or clearance surveys (100% coverage), depending on project type, are recommended to survey a discrete parcel of land. The number of 3 hectare plots per unit area depends on the desired intensity of the survey.
- 4) Surveyors should record all live tortoises, carcasses, scat, verified burrows (with scat or tortoise inside), and otherwise suitable/potential burrows (empty) and report to the Department.
- 5) Refer to the Department’s “Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects” if handling will be necessary.

CAJ:caj



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BUREAU OF LAND MANAGEMENT  
PHOENIX, AZ July 2, 2013

ARIZONA DIVISION

4000 North Central Avenue  
Suite 1500  
Phoenix, Arizona 85012-3500  
Phone: (602) 379-3646  
Fax: (602) 382-8998  
<http://www.fhwa.dot.gov/azdiv/index.htm>

In Reply Refer To:  
NH-202-D(ADY)  
HOP-AZ

NH-202-D(ADY)  
TRACS No. 202L MA 054 H5764 01L  
South Mountain Freeway (Loop 202)  
Request for Rio Salado Oeste status concurrence

Mr. Jim Andersen, Realty Specialist  
Bureau of Land Management  
21605 West 4th Avenue  
Phoenix, Arizona 85027

Dear Mr. Andersen:

This letter summarizes the current information the South Mountain Freeway study team has compiled regarding the Rio Salado Oeste (RSO) project as it relates to the W59 Alternative of the *South Mountain Freeway (Loop 202), Interstate 10 (Papago Freeway) to Interstate 10 (Maricopa Freeway), Draft Environmental Impact Statement and Section 4(f) Evaluation*. It should be noted that most of the coordination between the Bureau of Land Management (BLM), City of Phoenix, and the U.S. Army Corps of Engineers (USACE) regarding RSO was in relation to the W55 Alternative. In 2009, the W55 Alternative was shifted to 59th Avenue and was renamed the W59 Alternative. The location of the Salt River/RSO crossing has not changed.

The W59 Alternative would cross the Salt River through the eastern half of a 192-acre BLM parcel. The City of Phoenix has a lease on this parcel under provisions of the Recreation and Public Purposes Act (Lease A-31292). The leased land would be included in the proposed RSO project, which is cosponsored by USACE. Although the lease does not include a reference to the proposed freeway, BLM and the City of Phoenix, in an August 2005 letter, indicated they would work together to amend the lease to show the proposed freeway passing through the parcel if the W55 Alternative was identified as the selected alternative in the environmental impact statement (EIS) and Record of Decision.

In July 2010, the City of Phoenix and USACE completed the *Rio Salado Oeste Conceptual Design Documentation Report*. This report incorporates the location of the proposed South Mountain Freeway as it passes through RSO (see enclosure). According to USACE, the RSO project lacks funding to proceed. As a result, the proposed construction of the South Mountain Freeway in this area would precede RSO. Although traffic noise could affect some species, any wildlife that would inhabit the area after habitat improvements would experience the freeway as



2

an existing condition and become habituated to traffic noise. The City of Phoenix and USACE view the South Mountain Freeway crossing as an opportunity to use stormwater runoff from the proposed freeway to "irrigate" the river habitat. The study team will continue to consult with BLM, USACE, and the City of Phoenix to coordinate design efforts to minimize impacts on the proposed uses of this land.

If this summary is accurate and reflects the most currently available information, please sign the concurrence line below. If you or others in your organization have additional information, please provide it to the Federal Highway Administration by July 14, 2013, so that it can be incorporated into the Final EIS. If you have any questions, please contact Rebecca Yedlin, FHWA Environmental Coordinator, at (620) 382-8979 or [Rebecca.Yedlin@dot.gov](mailto:Rebecca.Yedlin@dot.gov).

Thank you for your time and assistance.

Sincerely,

Karla S. Petty  
Division Administrator

Signature for Bureau of Land Management Concurrence  
NH-202-D(ADY)

07/09/2013  
Date

Enclosure

cc:

Karen Williams, City of Phoenix, 200 West Washington Street, 12th Floor, Phoenix, AZ 85003  
Brian Kenny, U.S. Army Corps of Engineers, 3636 North Central Avenue, Phoenix, AZ 85012  
Ben Spargo, HDR Engineering, Inc., 3200 E. Camelback Rd., Suite 350, Phoenix, AZ 85018  
Scott Stapp, HDR Engineering, Inc., 3200 E. Camelback Rd., Suite 350, Phoenix, AZ 85018















## ARIZONA DIVISION

July 8, 2013

4000 North Central Avenue  
Suite 1500  
Phoenix, Arizona 85012-3500  
Phone: (602) 378-3646  
Fax: (602) 382-8998  
<http://www.fhwa.dot.gov/azdiv/index.htm>

In Reply Refer To:  
NH-202-D(ADY)  
HOP-AZ

NH-202-D(ADY)  
TRACS No. 202L MA 054 H5764 01L  
South Mountain Freeway (Loop 202)  
Request for Rio Salado Oeste status concurrence

Mr. Brian Kenny, Rio Salado Project Manager  
U.S. Army Corps of Engineers  
3636 North Central Avenue  
Phoenix, Arizona 85012

Dear Mr. Kenny:

The study team is updating information within the *South Mountain Freeway (Loop 202), Interstate 10 (Papago Freeway) to Interstate 10 (Maricopa Freeway), Draft Environmental Impact Statement and Section 4(f) Evaluation* (Draft EIS) for the production of the Final EIS for the project. Although the team has had informal telephone communications with you regarding the status of the Rio Salado Oeste (RSO) project, the Federal Highway Administration (FHWA) wishes to formally document the status within the Final EIS.

This letter summarizes the current information the team has compiled regarding the RSO project as it relates to the W59 Alternative of the South Mountain Freeway. It should be noted that much of the prior coordination between the Bureau of Land Management (BLM), City of Phoenix, and the U.S. Army Corps of Engineers (USACE) regarding RSO was in relation to the W55 Alternative. In 2009, the W55 Alternative was shifted to 59th Avenue and was renamed the W59 Alternative. The location of the Salt River/RSO crossing has not changed.

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2

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If this summary is accurate and reflects the most currently available information, please sign the concurrence line below. If you or others in your organization have additional information, please provide it to FHWA by July 29, 2013, so that it can be incorporated into the Final EIS. If you have any questions, please contact Rebecca Yedlin, FHWA Environmental Coordinator, at (620) 382-8979 or [Rebecca.Yedlin@dot.gov](mailto:Rebecca.Yedlin@dot.gov).

Thank you for your time and assistance.

Sincerely,

*Karla S. Petty*  
for  
Karla S. Petty  
Division Administrator

*Brian W. Kenny*  
Signature for USACE Concurrence  
NH-202-D(ADY)

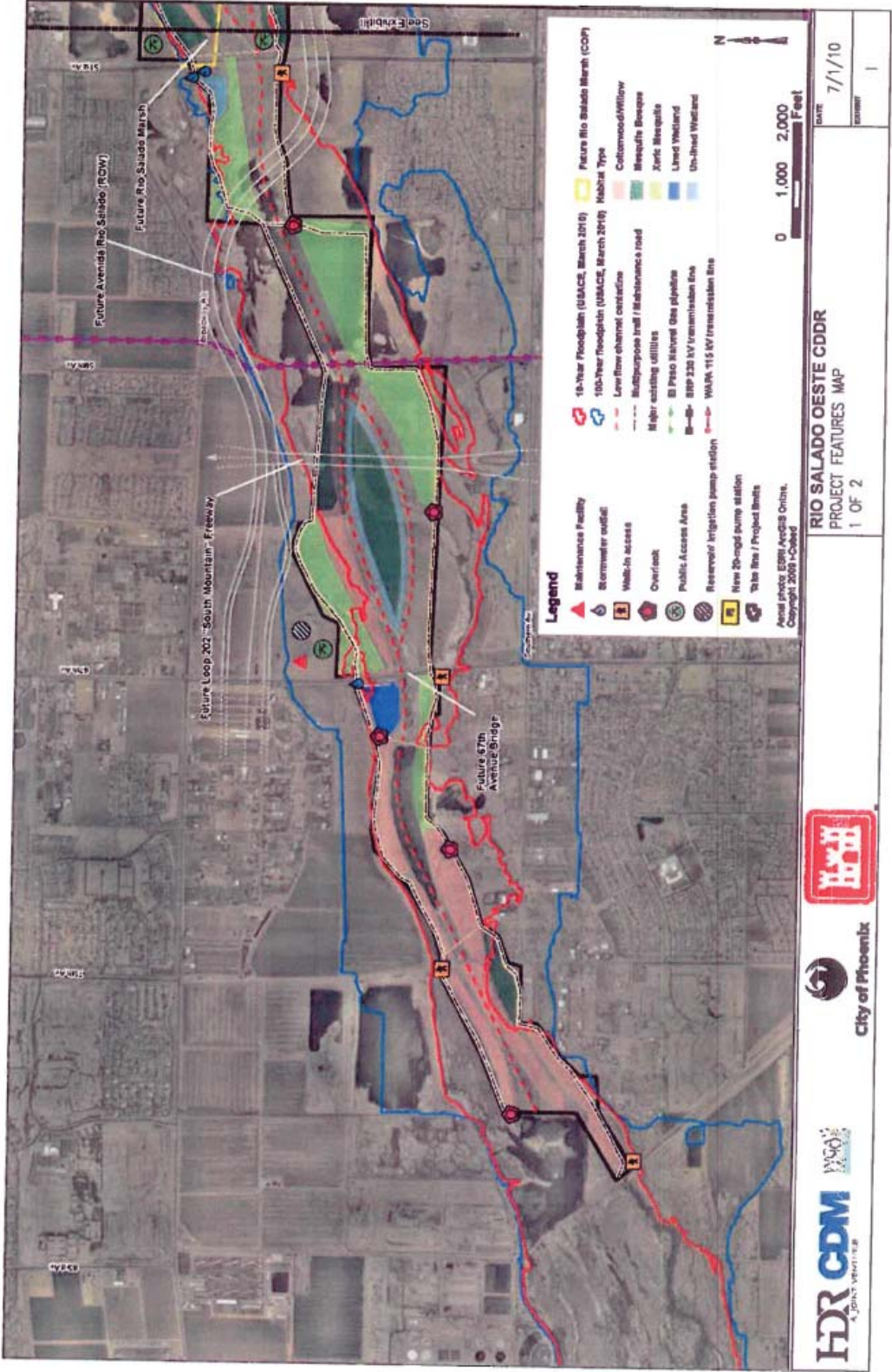
*24 October 2013*  
Date

Enclosure

cc:

Jim Andersen, Bureau of Land Management, 21605 West 4th Avenue, Phoenix, AZ 85027  
Karen Williams, City of Phoenix, 200 West Washington Street, 12th Floor, Phoenix, AZ 85003  
Ben Spargo, HDR Engineering, Inc., 3200 E. Camelback Rd., Suite 350, Phoenix, AZ 85018  
Scott Stapp, HDR Engineering, Inc., 3200 E. Camelback Rd., Suite 350, Phoenix, AZ 85018





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